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SCRAP METAL

LORD REITH announced this week that the Ministry of Works and Buildings has undertaken, at the request of the Minister of Supply, the task of collecting all the available iron and steel scrap in the country. It is hoped to obtain 40,000 tons a week from this "national drive." The need for the recovery of such scrap has become more urgent because of the extension of the war to the Far East, which has resulted in a stoppage of scrap imports from America.

The Ministry's programme is set out in a statement which is given on page 69, and the Minister may be assured of the complete co-operation of the building industry in the accomplishment of this vital task. The average builder's yard generally contains many odds and ends of iron scrap, and should afford a profitable field of recovery. Such scrap as short ends of rolled steel joists; old channels, old stanchions and cast-iron columns; out-of-date and misfit iron rainwater, soil and drain pipes; obsolete or worn-out plant, including such items as mortar pans, old flitch plates and concrete hanging irons—such scrap collectively is likely to amount to a very considerable volume.

Already great results have been obtained from the collection of iron railings, and all who have any regard for the amenities must have noted with satisfaction the disappearance of so much ugly ironwork from our streets, buildings and open spaces. But the time has come when the further removal of decorative ironwork must be very seriously considered. No one objects to the scrapping of offensive ironwork, but, while there is any possible alternative supply, care should be taken to preserve whatever is valuable in design and craftsmanship, both old and new.

A correspondent drew attention to this matter in a well-reasoned letter which appeared in our last issue, pointing to the existence of many ugly lamp posts, badly designed wrought-iron brackets and enamelled signs, "Belisha Beacons," and redundant balconies which cumber without gracing the street fronts of a certain period of London architecture. Few features can have received less consideration from the point of view of design than did those "beacons" which made their appearance in their tens of thousands almost overnight. The idea of a right of way for pedestrians was both right and desirable, and it should certainly not be relinquished while driver and walker share the way; but the manner of marking these positions for special highway courtesy was by no means satisfactory, and we should be able to find a better way of doing the right thing by humanity. Under black-out conditions the "beacons" themselves lose most of their usefulness, so that we might well take the opportunity of removing them for a better and more immediately useful purpose.

The same applies to lamp standards at a time when in many places street lighting has been suspended altogether, while in others a limited scheme leaves a large proportion of units out of service. In such ways could we find many tons of metal and clear the way for a more decent standard of design when the lights are turned on once more. And, if suggestions are wanted, has anything been done to remove the scores of miles of disused tramlines that are to be found buried under the road surface of many of our towns and cities?

While on the subject of salvage we may refer to another suggestion of a correspondent relating to those large hoardings which disfigure the approaches to towns, and occupy every vacant site as it appears. They are substantial structures for the most part and contain timbers of fairly large scantling. Wind and weather has generally well seasoned the bulk of such material, and the inspectors of dangerous structures have kept zealous eyes upon the appearance of rot. There is no doubt of the existence of a large and useful store of precious material in these places.

The removal of most of these unfortunate things would add to the sense of fitness and order in many places, and we should have a good chance to consider whether this form of advertising has any proper place in our scheme of things, and, if so, whether we cannot discriminate more wisely between the useful and the useless.

There seems to be such a useful double edge to these two suggestions, chosen almost at random from the mass of common sense our correspondents usually offer us, that they deserve special consideration.

NOTES AND NEWS

The R.I.B.A. President.

Our readers will be glad to know that Mr. W. H. Ansell has made a recovery from his recent illness, and was able to attend the annual luncheon of the London Master Builders' Association—his first public appearance since his return.

War Damage Repairs: Professional Fees.

The War Damage Commission has decided that where the cost of work of making good war damage is being paid by instalments as the work proceeds, charges for professional fees (in accordance with the scale and conditions issued by the Commission) borne by the claimant may be accepted as part of an instalment claim on the following basis:—

(a) In cases in which a firm contract is entered into for the whole of the work there will be admitted as part of the first instalment the actual fees already paid by the claimant up to an amount not exceeding two-thirds of the total estimated fee. The balance will normally be paid with the final instalment claim. In those special cases where the claim is a very large one, consideration will be given to the question of further advances on account of fees as part of intermediate instalments.

(b) Where the work proceeds on the footing of a prime-cost contract, with no firm basis on which to estimate the total amount of fees allowable, the permitted instalment in respect of fees will not exceed the appropriate scale percentage on the cost of the work so far executed.

Rebuilding in Scotland.

The hope that a long view would be taken of post-war reconstruction and a definite plan for building adopted with the Ministry of Works and Buildings as the controlling authority was expressed in Glasgow on January 8 by Mr. J. M. Fairlie, who addressed a meeting of the Scottish branch of the Institution of Structural Engineers. If that state of affairs could be brought about, said Mr. Fairlie, the adoption of new methods of design would be reasonably accomplished, but might involve considerable legislation. The work of designing would possibly be undertaken by private firms working for the Ministry of Works.

An Educational Appointment.

Mr. John Bland, A.R.I.B.A., has been appointed Associate Professor of Architecture and Director of the School of Architecture, McGill University, Montreal.

L.M.S. Architectural Appointment.

The L.M.S. Railway Company has appointed Mr. R. Llewellyn Davies, B.A., A.R.I.B.A., to be Development Assistant in the Architect's office. His duty will be to act as liaison with the various sections of the company's Scientific Research Department. He will also act as secretary of the Building Research Committee. Mr. Davies took the Mechanical Sciences Tripos at Cambridge and the Diploma in Architecture at the Architectural Association School. He was also awarded the Diploma of the American Summer School in Paris.

Obituary: Mr. J. R. Truelove.

We regret to announce the death of Mr. J. Reginald Truelove, A.R.I.B.A. A notice will appear next week.

PRINCIPAL CONTENTS

ARTICLES	Page
LEADER: SCRAP METAL	53
POST-WAR RECONSTRUCTION: Mr. George Hicks on "The Part of the Ministry of Works"	55
CORRESPONDENCE	62
TIMBER ECONOMY: Ministry of Works Recommendations	64
LONDON MASTER BUILDERS' ASSOCIATION: Annual Luncheon	66
CONTROL OF BUILDING MATERIALS: MINISTRY OF WORKS' ANNOUNCEMENT	67
CLAIMING FOR WAR DAMAGE	68
FORTHCOMING CONSTRUCTION	69, 72-74
WAGES, MATERIALS PRICES	70, 71
ILLUSTRATIONS	
CIVIC CAFES, MALDEN AND COOMBE. By A. R. Goldthorp, B.Sc.	57

IN 1917.

From *The Builder*, January 12.

The Lights of London.—An evening paper recently suggested that the lighting restrictions in London would shortly be removed as the authorities had so far improved the aerial defences that the darkness in which we have been groping is no longer necessary. We hope this is so . . . and trust that this year the German aviators may have too much work in guarding their own industrial and military centres to be able to pay us surprise visits. . . .

COMING EVENTS.

Saturday, January 17.

Institute of Quantity Surveyors. Inaugural meeting of Notts, Derby and Lincoln branch. Victoria Station Hotel, Nottingham. 3.30 p.m.

Institute of Quantity Surveyors. Inaugural meeting of North-West branch. Bull and Royal Hotel, Preston, Lancs. 3 p.m.

Tuesday, January 20.

London Master Builders' Association.—Annual General Meeting.

Architectural Association. Council Elections. Mr. Misha Black on "Propaganda in Three Dimensions." Also Exhibition of Government Exhibition Designs. 34, Bedford square, W.C. 2 p.m.

Housing Centre Lunch. Dr. E. R. Roper Power on "A Nuffield College Local Survey." 13, Suffolk-street, S.W. 1 p.m.

Thursday, January 22.

Institution of Electrical Engineers. Mr. L. B. Whitaker and Mr. S. Smith on "Electricity in Sugar Factories." Surrey-place, W.C.2. 5 p.m.

R.E. COMMISSIONS

The following letter has been received by the R.I.B.A. from the War Office:—

Sir,—I am directed to inform you that it is desired to obtain particulars of members and students of professional institutions who are not already serving and are desirous of consideration for commission in the Royal Engineers, either through the Army Officers Emergency Reserve or after training in the ranks. It will, therefore, be appreciated if you will kindly forward the names of members and students of your Institution who are desirous of consideration to the Under-Secretary of State, War Office (A.G.7), Cheltenham.

May the following information be furnished in respect of each applicant:—

1. Date of birth.
2. Private address.
3. Occupational classification No. *Not* Industry letter. (Important.—This information, if not known, can be obtained from the N.S. Officer at the local office of the Ministry of Labour and National Service.)
4. Registration No. under National Service (Armed Forces) Act (if registered), and date and place of registration under this Act.
5. Particulars of former Military or O.T.C. Service, if any, including details of any certificates obtained.

Accepted candidates aged 31 and over will be granted direct commissions through the A.O.E.R. Those under 31 may be granted direct commissions through the A.O.E.R. or offered entry into an Officer Cadet Training Unit, either after about six weeks' training in an Other Ranks Training Unit or after the normal Other Ranks training (i.e., four months in a Training Battalion, followed by six weeks pre-O.C.T.U. training).

Any not selected for commissions at any stage will be disposed of as follows:—

(a) If by that time the individual would be called up under the National Services (Armed Forces) Act, had he remained in civil life, he will be posted to such duties as may be thought fit.

(b) If he would not by then have been called up, he will be discharged.

The approximate numbers required from all sources are as follows:—

31 years of age and over, for Works Services and Transportation—80 a month.

Under 31 years of age (for R.E. Units, including Transportation)—no limit at present for suitable candidates.

The Officers who are required for the Transportation Branch of the Royal Engineers include those having experience in railway construction or track maintenance, locomotive operating, mechanical workshops and marine engineering.

In the event of any member or student of your Institution receiving a calling-up notice he should immediately notify the War Office (A.G.7), in order that—

(a) If called up for service in the Royal Engineers, consideration may be given to his qualifications for a commissioned rank.

(b) If called up for service in another Arm, the question of his transfer to the Royal Engineers may be taken up, with subsequent consideration for commissioned rank.

This course is necessary in order to ensure that qualified engineers are suitably placed in the Army as quickly as possible.

B. G. Verland, Col.,
For Director of Organisation.

[Members and students of R.I.B.A. who wish names to be considered should write to "Secretary, R.I.B.A.," giving information required.]

ENGLISH ART AND THE MEDITERRANEAN

A PHOTOGRAPHIC EXHIBITION.

THE Warburg Institute (Imperial Institute Buildings, S.W.7) has held various photographic exhibitions during the past three years. One of particular interest was recently opened by Sir Kenneth Clark, showing the way in which classical models from the Mediterranean were brought to England and transformed by native craftsmen and artists into something specifically English. Many connections between the British Isles and the countries bordering on the Mediterranean existed throughout the centuries, and every fresh contact resulted in a new wave of Mediterranean influence on English art.

This process, which is no slavish imitation but a continuous transformation of southern models by English artists, is illustrated from early primitive times to this day. For instance, the formalised Greek ornaments became in the hands of Celtic craftsmen more fluid and irregular, thereby expressing a difference of temperament. Or taking as another example the hieratic art of the Byzantine Empire which had crystallised into a solemn rigidity: native artists accepted the general layout of the pictures, but invested the figures with violent emotions, which showed their own new and fervent conception of Christianity. In the field of architecture the transformation reached its climax in Robert Adam; he used Roman decoration freely, but gave it a new rhythmic and draughtsmanlike style which is as characteristically English as the irregular Celtic ornament and the emotional quality of the 12th century manuscripts. Yet we are always reminded of the cultural debt to the Mediterranean.

The photographs exhibited show side by side in many cases the original building and the English adaptation inspired by it. Prior Park, Bath, for example (1735-43), built by John Wood, shows the English interpretation of Palladio, who has been adapted cleverly and with taste and judgment. Chiswick Park, built in 1729 and 1736 by Lord Burlington for himself, was mainly inspired by Palladio's Villa Rotonda, near Vicenza, built in 1550. According to the admirable catalogue of the exhibition, Lord Burlington became, in the words of Walpole, the English "Apollo of the Arts" and William Kent his "proper priest." Colin Campbell and Isaac Ware, as well as lesser men like Henry Flitcroft, Matthew Brettingham, John Vardy and Robert Castell, belonged to this circle, whose literary champion was Alexander Pope. He hailed Burlington's intentions in his epistle on taste published in 1731 with the words:—

Make falling Arts your care,
Erect new wonders and the old repair;
Jones and Palladio to themselves restore,
And be whate'er Vitruvius was before.

But Pope also saw the dangers which lay in close adherence to a fixed canon of taste.

Yet shall (my lord) your just, your noble rules,
Fill half the world with imitating fools,
Who random drawings from your sheets shall take,
And of one beauty many blunders make.

Another exhibit is a photograph of the Tower of the Winds, Athens, from Stuart and Revett's Antiquities of Athens, adapted in the tower of Radcliffe Observatory, Oxford (1770-1794), of which Henry Keene and James Wyatt were the architects. Yet another interesting example is Cronkhill, near Shrewsbury, built in 1802 by John Nash. It shows the effects of Italian and Hellenistic tendencies on nineteenth-century architecture. The inspiration of early pictures and manuscripts is also shown in pictures by English artists.

The exhibition remains open during January, and may probably be extended. A series of lectures has been arranged jointly by the Courtauld and Warburg Institutes.

POST-WAR RECONSTRUCTION

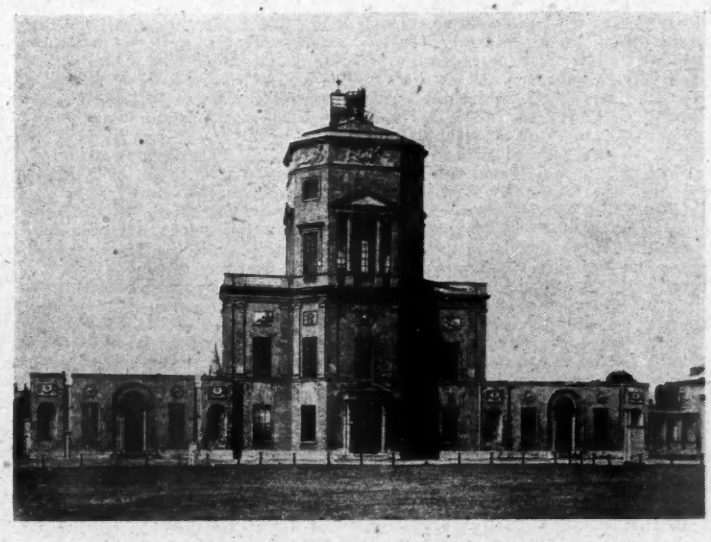
THE PART OF THE MINISTRY OF WORKS.

A SERIES of meetings is being held by the Town and Country Planning Association in the Dome Lounge at Messrs. Dickins & Jones, Regent-street, W.1. On January 6, the first of these was addressed by MR. GEORGE HICKS, M.P. (Parliamentary Secretary to the Ministry of Works and Buildings), whose subject was the part to be taken by that Ministry in post-war reconstruction.

The Ministry, said Mr. Hicks, was not, as such, concerned with "planning," but mainly with building. It was common knowledge that Lord Reith, personally, was not restricted in that way. His activities extended to the wider subject of "planning," and he had a small specialist staff working on surveys and on the solution of some of the problems these surveys had thrown up. "You have from time to time," he said, "had news of the activities of this group; it is now just over two months since it announced the formation of Lord Justice Scott's Committee. Generally speaking, their starting point is the report of the Barlow Commission. The Minister and his town-planning staff are going to see if they can get a good deal more planning tried in actual practice."

The Ministry itself, being a building authority, had no planning powers and no planning ambitions. It had, therefore, no direct connection with the matter of the Barlow Report; yet it would be true to say that when it started to consider post-war reconstruction it did come down very much to the same foundation. There was a feeling at the Ministry that a new chapter in the industrial revolution might be just beginning. They were working for

THE TOWER OF THE WINDS, ATHENS.
(From Stuart and Revett's "Antiquities of Athens.") Compare with Radcliffe Observatory.



THE RADCLIFFE OBSERVATORY, OXFORD.
Begun from Henry Keene's designs in 1770, the Observatory was completed by James Wyatt in 1794. The influence of the Athens building is to be noticed.

an age when the question in what kind of town, in what kind of streets, and in what kind of houses the nation should find its home, would be settled less by the blind haphazard processes that we knew, and more by what our people collectively thought was right, and desirable, and proper.

"Such a change cannot come about without a great deal of collective action and control," continued the Parliamentary Secretary. "You know that in matters of private building the Ministry has certain powers, all of which are war-time powers only. It is more than likely that demand will arise for some of these powers to be continued after the war; in fact, I am not sure that the demand is not already there. The purpose of Government control in peace time bears no resemblance whatever to the purpose of war-time control. At this moment the Ministry controls private building chiefly in order that it may restrict it. Building resources are needed for the prosecution of the war, and only the bare necessities can be allowed for other than direct war-winning purposes. For some time after the war our resources for building are bound to fall short of demand, and so, if the Ministry should be asked to continue some measure of control, its object would be not to withhold building resources from the public, but to see that they are fairly and equally available to all, and to each according to his need.

Post-War Rationing of Building.

"Whatever may happen to private building, we may fairly anticipate that the rationing of Government building in one form or another will go on. The control will have very wide repercussions outside its field of operation. It means central planning and central direction for a very large aggregate of building. It does not mean any loss of freedom for individual departments, but it does mean that there will be a place in this country where all the facts about Government building are known and recorded, and where this vast nation-wide and highly ramified process can be clearly seen as a whole."

The Ministry of Works had not been intent to restrict, to portion out, to ration. It had studied the capacity of several important sections of the industry and sought to strengthen it at weak points. The Balfour Committee on Cement Production and the Committee on the Brick Industry, appointed under the chairmanship of Major Oliver Simmonds, M.P., were to be noted. But those were some special sectional matters; for the industry at large there was the Central Building Council. The members of that Council, of which Sir Ernest Simon was Deputy Chairman, were chosen personally by the Minister as men of wide experience in the different branches of building and construction. They included the Public Works and Building Employers and the Operatives, together with a small number of professional men. The object of the Council was to provide the Minister with a body of representative advice on matters generally affecting the industry. The existing associations and organised interests had access to the Minister as hitherto, and there was no interference with the fixing of wages and conditions, and for settling industrial disputes. "But the Minister," declared Mr. Hicks, "looks to the Central Council to advise him in many of those weighty and difficult problems which the war has produced, and the peace will produce, where the solution is best to be found by studying them—at least in the first instance—outside the ordinary routine. They are at the moment particularly studying the return to the industry at the conclusion of the war of adequate labour and means to carry out the whole reconstruction programme.

Improving the Quality of Building.

"I now come to a point where our subject becomes rather less physical; the point where the Ministry will be dealing, not with the quantity of building, but with its quality; not with the materials and labour that go into a building, but with the solid, lasting value in human satisfaction that comes out of it after it is built. When the Ministry was set up in October, 1940, the Lord Privy Seal outlined its functions in Parliament, and I will repeat to you one of the things he said :—

"'The Minister,' said Mr. Attlee, 'will take steps to institute research into such questions as the adoption of substitutes for building materials which are in short supply, or the modification of designs and specifications with a view to expedition, and to ensure that the results of past and future research are promptly communicated to all concerned. For this purpose he will make full use of the Building Research Organisation of the Department of Scientific and Industrial Research. He will be empowered to call on departments retaining responsibility for buildings to satisfy him that they are making full use of the results of research in this connection.'

"In that passage," continued the speaker, "the Ministry is asked to deal with knowledge, with science, with technique. It is asked to co-ordinate, to investigate and to engage in experiment and research. Above all, it is asked to see that the results of this work are properly disseminated, and not only that, but that they are used and acted upon. We have done a great deal of work on standardisation—a word which, it seems to me, is used rather loosely to cover at least three different things. First, there is the standard specification of materials. This is a question of agreeing a physical or chemical description, or both, that will give the material certain fixed properties upon which the user can rely; and the tests to be applied. This work—the work of the British Standards Institution—goes on continuously, in war or peace, and is the basis of sane design and economic building. Then there is what might be described as 'simplification'; the reduction of the many different sizes, shapes and varieties to a few, or perhaps to one only. This is obviously desirable at all times, provided adequate scope for individual enterprise be left; in war it is essential. Then there is the essential war-time necessity to reduce standards by reducing length of life or decreasing the factors of safety, in order to save materials and labour. While there is primarily a war need, it is in not a few cases pointing out extravagances which we may avoid in the future. Finally, there is standardised planning. The Ministry has adopted standard practice in the planning and equipment of such buildings as canteens and hostels. This is standardisation in the biggest and widest sense. Side by side with these activities there has necessarily been much research into more economical systems of constructional design."

Training of Technicians and Craftsmen.

In all those activities connected with building, the post-war situation had so far existed only as a background. The war had been the principal thing. "I am glad to be able to tell you that a point has now been reached where the Minister considers that the work of post-war problems cannot be carried on merely as a by-product of other more important functions. There is one particular problem which I do not propose to deal with to-day, as it is large enough to provide material for a talk by itself. It is the problem of training new entrants into the building industry, both craftsmen and technicians. My Minister has already taken a number of steps to see that this problem receives the very close attention which it deserves. Special staff is being appointed to deal with these problems, and a public announcement is shortly to be made. Meanwhile, I will try and tell you something about the lines on which this new Department is expected to work.

"First of all, we are struck with the enormous discrepancy between the state of scientific knowledge about building and the state of actual building as we see it in our streets and in our houses; the discrepancy, that is, between what is known and what is done. Take any ordinary building—it may be a State-aided council house, a good speculative builder's house, a block of flats, or an office block or a factory—it does not matter which. Ask yourself just how much there is to be found in those buildings as a whole of all the thinking and experimenting in building matters that has been going on in workshops and drawing offices and laboratories in all the great countries of the world. I think the answer will be disappointing. A mass of priceless knowledge lies scattered in many places, often buried under accumulations, much of which is far from priceless. We are making it our business to see that it is all collected and prepared in a convenient form, a form in which it can be digested by the people who do the work of building. Our intention is to stimulate the various interests most vitally concerned, to do the work, and we will co-ordinate and assist."

He had already mentioned the subject of research. One of the laboratories of the Department of Industrial and Scientific Research was the Building Research Station, which was concerned with technical problems of building. They had agreed that the Station should be looked on as the research arm of the Ministry in all laboratory research. The staff of the Building Research Station would help to sort out interesting knowledge and to add to it where required.

"In all this mass of knowledge and research we have found one very serious gap. The German Army is said to have won the battle of France, not through knowing how to build tanks, but through knowing how to maintain and repair them. Architects and the building industry know a great deal about building buildings, but the problem of maintenance is continually growing more acute. It is important that when we adopt new ideas we should know our position after they have been adopted. This question of efficient maintenance is very much mixed up with the question of how long a building should be built to last. Many people think our buildings are too durable to be efficient and economical on a long view."

"Question Time."

In reply to a question, Mr. Hicks said the problem of housing after the war was receiving the very active consideration of the Ministry. First came the provision of houses for people now working in factories built for war purposes in various parts of the country. Many of these people would want to return to their former places of residence. Similarly with men now in the Army.

In reply to other questions, Mr. Hicks said he hoped that after the war building by-laws would be brought up to date and made to conform to modern standards.

CIVIC CAFES

FOR THE BOROUGH COUNCIL OF MALDEN & COOMBE

MR. A. R. GOLDTHORP, B.Sc., Assoc.M.Inst.C.E., F.S.I., BOROUGH ENGINEER.

ENTRANCE DETAIL, CIVIC CAFE No. 3.

IN CONSIDERING THE ADAPTATION AND EQUIPMENT OF premises for use as British Restaurants—or Civic Cafés, as they are called in Malden and Coombe—it is thought that typical plans of schemes as carried out for the Malden Council will be of interest and possibly of some guidance to officials engaged on this task. There is also no doubt that the comprehensive schedule given of equipment with cost of the same will be of considerable assistance to those about to commence such work.

THE PLANNING naturally depends upon the nature of the buildings available, but the schemes chosen for illustration are fairly typical of the accommodation met with in suburban areas and medium-sized provincial towns. The first essential of a roomy dining-hall and commodious kitchen (or room to build one) having been secured, the need for separate exit, cash-and-carry servery, food storage, reserve water storage, staff room, lavatories, covered cycle stands, pram parking space, fuel storage and protection from the weather for any queue which may form, are the requirements for consideration.

A water tank of 1,000 gallons capacity has been provided to each restaurant, constantly drawn upon through the hot-water system, so as to ensure fresh make-up water each day.

At the rush period of the midday meal there has always formed at some time for a short period a queue of waiting customers, and it has been found necessary to provide protection from the weather.

Other details are best discussed by reference to the plans.

1. CHURCH HALL.—It will be seen that considerable extension was necessary to provide the kitchen, lavatories and water storage. The whole structure is one-storey in height with dormer windows to main hall, and lantern lights to flat roof over the new kitchen. A separate exit from the dining-hall was available, and a useful feature is the separate servery for cash-and-carry customers. There was insufficient space available for a staff room and external lavatories had to be provided.

The cost, without equipment, was :—

	£	s.	d.
Extension and Structural Alterations ...	935	0	0
Drainage and Paths	60	0	0
Floor Finishings	40	0	0
Black-out	85	0	0
Gas Service	17	0	0
Gas Heating Installation	75	0	0
New Electric Cable	8	9	0
	£1,220	9	0

2. DANCE HALL.—This is a one-storey building with flat roof and no roof lights. The only external addition is the water storage tank on brick piers with wash-up and storage space incorporated under. It has the advantage of indoor lavatories and ample covered space for cycles and prams. It has the disadvantage that cash-and-carry customers must cross the dining-hall to the exit. The natural lighting on the west side is poor.

The cost, without equipment, was :—

	£	s.	d.
Structural Alterations	345	0	0
Water Storage	100	0	0
Black-out	50	0	0
Alterations to Heating System...	65	0	0
Paths and Fencing	30	0	0
	£590	0	0

3. CHURCH INSTITUTE.—This is a one-storey building with the exception of steward's quarters. There is no roof light to dining-hall and natural lighting is not good. The converted billiard room has made an excellent kitchen, but the cash-and-carry servery is awkwardly placed so that customers obstruct the entrance to some extent.

The cost, without equipment, was :—

	£	s.	d.
Structural Alterations	550	0	0
Drainage and Paths	70	0	0
Water Storage	80	0	0
Floor Finishings	35	0	0
	£735	0	0

4. SHOP PREMISES.—The first and second floor of this building consists of flats. This has entailed expense in respect of a brick chimney 40-ft. high to serve the kitchen, built on to the gable end of the premises. Additional kitchen space had to be constructed. A good feature is the separate cash-and-carry servery.

VIEW IN KITCHEN, CIVIC CAFE No. 3.

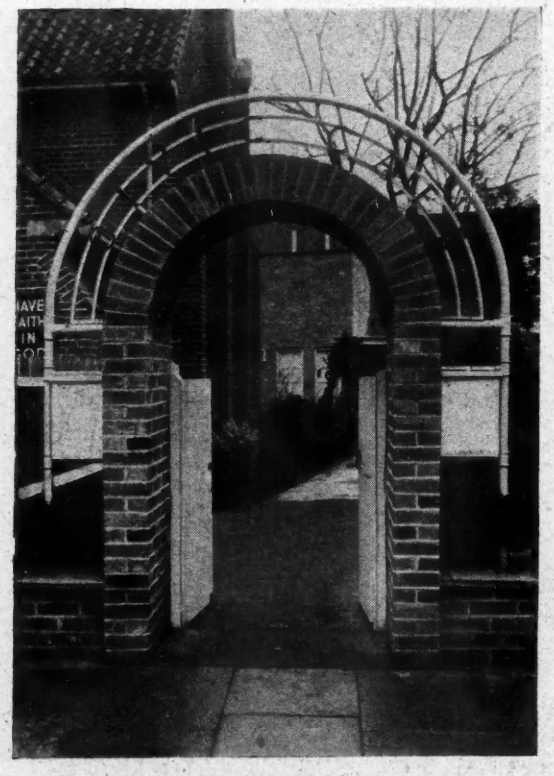
The cost, without equipment, was :—

	£	s.	d.
Structural Alterations	550	0	0
Black-out	50	0	0
New Gas Service	12	0	0
Gas Heating Installation	60	0	0
	£672	0	0

5. Club Premises.—This is a single-storey building having a well-lighted main hall. The kitchen is rather cramped due to the nature of the rooms available, but has the advantage of a separate servery for cash and carry. There is inside lavatory accommodation for the staff, but external ones had to be built for the general public.

The cost, without equipment, was :—

	£	s.	d.
Structural Alterations, including drainage and paths and water storage	670	0	0
Floor Finishings	39	0	0
Black-out	50	0	0
New Gas Main	120	0	0
Covered Way	30	0	0
Renovation of Heating System	58	3	6
	£967	3	6



ENTRANCE DETAIL, CIVIC CAFE No. 1.

VIEW IN KITCHEN, CIVIC CAFE No. 1.

GENERAL REMARKS.

The floors to dining-halls, being of wood, were machine-sandpapered and lightly stained, and coconut matting tacked down in the gangways. This gave an attractive finish and is about half the cost of covering with linoleum. The floors to kitchens are either of wood where existing, or concrete screeded or tiled in new work. Linoleum in a kitchen does not last long. It is far better to have bare wood which can be scrubbed down.

As regards heating of the premises, two have hot-water systems, actuated by gas-fired boilers, convertible if necessary to solid fuel. The others are heated by gas radiators, two of them having radiant heat elements suspended from the ceilings. The dining-halls are ventilated by natural means, but the kitchens and vegetable cooking-rooms have the addition of extraction fans which have proved to be most essential in hot weather.

The system of payment for meals as recommended by the Ministry of Food and in general adoption is by purchase of tickets immediately on entry, to be surrendered for the dishes at the servery. Thus, the customer is supposed to gauge the appetite before sampling the fare. In the Malden system, tickets are given with the dishes for surrender by the customer with the appropriate payment to the cashier, who must be passed at the end of the servery. This has the disadvantage that customers returning for a second course hang over the barrier rail, thus impeding the serving of new customers and defeating the whole object of the barrier rail. It has, however, worked quite satisfactorily in practice.

As a rough indication of the meals provided, in each case between 12 noon and 3 p.m. dinners are served to the extent of 3 to 3½ times the capacity of the restaurant with the exception of Monday, when it drops to about twice the capacity.

The staff employed at each restaurant is as follows :—

	£	s.	d.		
1 Cook Supervisor	2	10	0	per week.	plus war bonus.
1 Assistant Cook	2	0	0	,,	
3 Kitchen Hands	1	10	0	,,	
1 Cashier	1	10	0	,,	

In addition to this, six voluntary helpers are required. All are provided with a free midday meal. Much credit is due to the members of the Malden Council serving on the responsible sub-committee whose zeal and acumen have been directed to ensuring the provision of cheerful and attractive surroundings in the restaurants and equipment in keeping with the dignity attained so as to ensure popularity of this service with all sections of the community. Some equipment costs are on page 62.

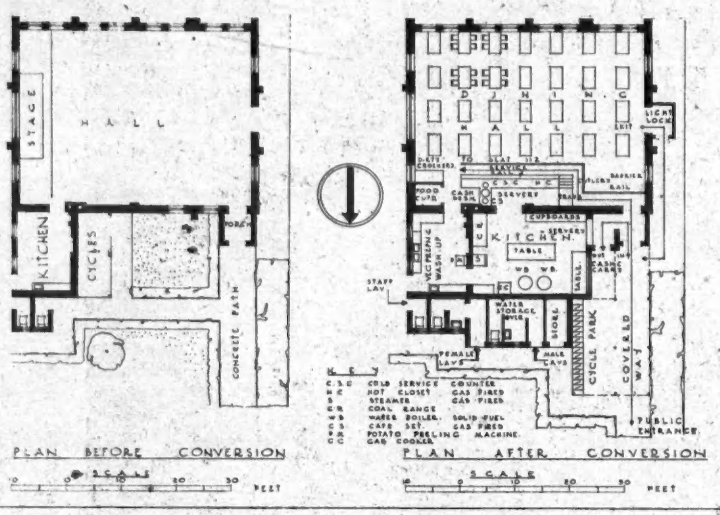
CIVIC CAFES, MALDEN AND COOMBE.

INTERIOR OF DINING-HALL, CIVIC CAFE No. 2.

VIEW OF SERVERY, CIVIC CAFE No. 1.

MR. A. R. GOLDTHORP, B.Sc., Assoc.M.Inst.C.E., F.S.I., BOROUGH ENGINEER.

① CHURCH HALL



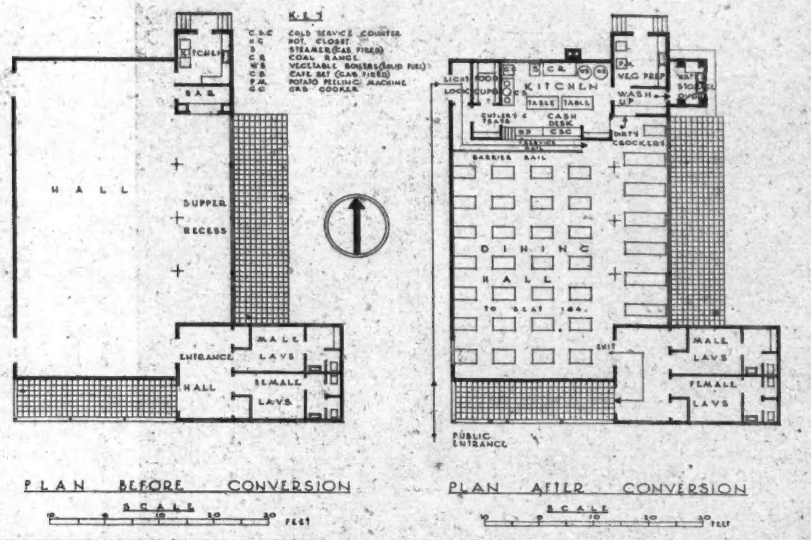
PLAN BEFORE CONVERSION

SCALE 0 10 20 30 FEET

PLAN AFTER CONVERSION

SCALE 0 10 20 30 FEET

② DANCE HALL



PLAN BEFORE CONVERSION

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PLAN AFTER CONVERSION

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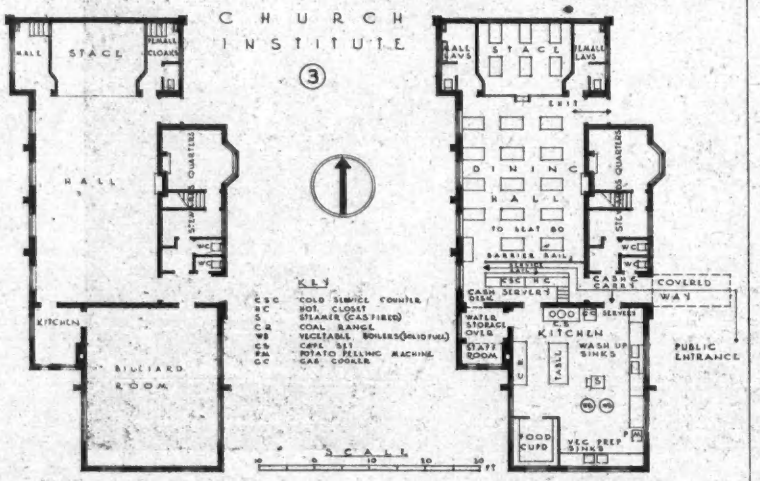
③ CHURCH INSTITUTE



PLAN BEFORE CONVERSION

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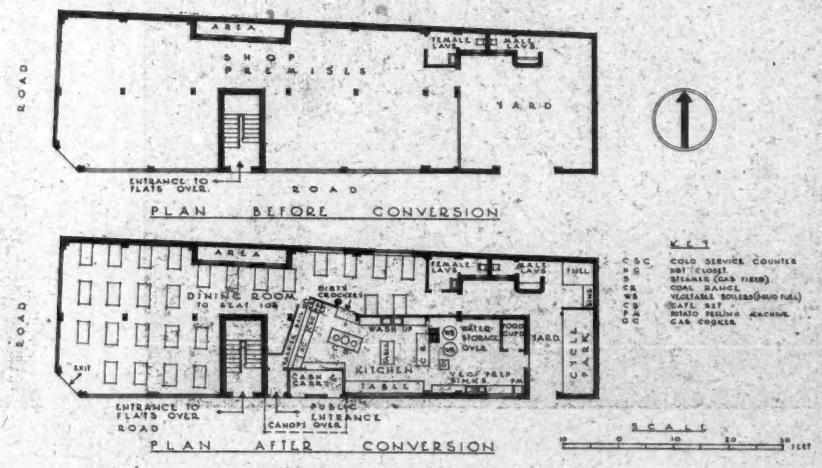
PLAN AFTER CONVERSION

④ SHOP PREMISES



PLAN BEFORE CONVERSION

PLAN AFTER CONVERSION

SCALE 0 10 20 30 FEET

DINING-HALL, CIVIC CAFE No. 5

The architect desires to express appreciation of the work performed by Mr. Oscar Law, registered architect on his staff, in assisting him with these schemes.

The names of the contractors associated with the works are as follows:—

1. *Church Hall*: Messrs. F. Hartfree, Ltd., Kingston-road, New Malden.

2. *Dance Hall*: Mr. S. W. Wilson, Westbury-road, New Malden.

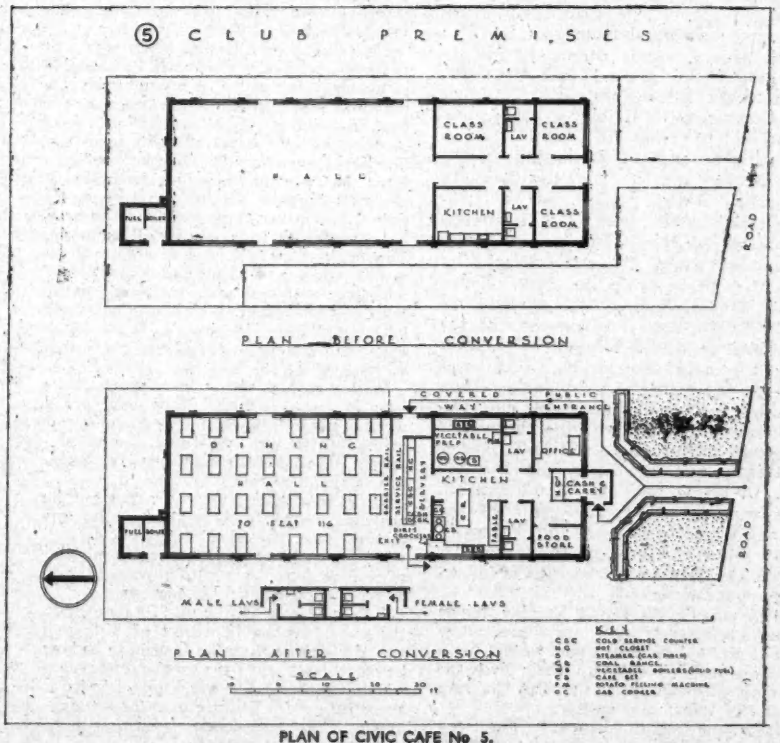
3. *Church Institute*: Messrs. F. W. Streeton, Ltd. Acacia-grove, New Malden.

4. *Shop Premises*: Messrs. C. H. Coates, Ltd., Davies-Road, Tolworth, Surbiton.

5. *Club Premises*: Messrs. F. Hartfree, Ltd., Kingston-road, New Malden.

CIVIC CAFES, MALDEN AND COOMBE B.C.

MR. A. R. GOLDTHORP, B.Sc., A.M.Inst.C.E., BOROUGH ENGINEER.



PLAN OF CIVIC CAFE No. 5.

The following details of equipment required for the Dance Hall Civic Café (Job No. 2), which has seating capacity for 164, will, we think, be found of interest :—

No.	Article.	Total. £ s. d.
2	30 gallon Coal-fired Boilers	
1	Potato Peeling Machine	
1	Electric Mixing Machine	187 10 0
1	Gas Heated Cafe Set	
80	Serving Trays	
1	Solid Fuel Fired Range	103 3 9
1	Single Compartment Gas Heated Steaming Oven...	41 10 0
1	"Ascot" Multi-point Gas Water Heater	16 7 7
1	Gas Auto-Steam Hot Cabinet	48 12 0
125	Spacing Rings for use in Hot Cabinet	10 6 3
1	8.15 Frigidaire Service Cabinet	88 0 0
		£495 9 7
164	Hardwood Nesting Chairs	115 9 8
41	Tables	108 13 0
6 doz.	Tablecloths	14 0 0
		£238 2 8
	Crockery.	
25 doz.	9 inch Dinner Plates	9 14 1
25 ,,	9 inch Soup Plates	9 14 1
15 ,,	Fruit Saucers	3 0 9
25 ,,	7½ inch Side Plates	7 3 6
5 ,,	Condiment Sets	4 16 2
30 ,,	Cups	9 11 3
25 ,,	Saucers	4 13 9
25 ,,	Tumblers	4 7 6
50 ,,	Water Jugs	1 13 4
		£54 14 5
	Cutlery.	
20 doz.	Dessert Knives	11 0 0
40 ,,	Dessert Forks	13 0 0
20 ,,	Dessert Spoons	4 10 0
20 ,,	Teaspoons	2 15 0
		£31 5 0

No.	Article.	Total. £ s. d.
	Miscellaneous Equipment.	
2	10 inch Saucepans, 20 pts.	1 3 4
2	9 inch Saucepans, 12 pts.	0 16 8
1	6½ inch Saucepan	0 7 0
1	14 inch Tinned Steel Colander	0 7 7
2	12 inch Steel Galvanised Buckets	0 6 3
2	16 inch Galvanised Store Bins	1 5 1
1	Steel Mixing Bowl	0 3 6
1	6 pt. Enamel Teapot	0 7 0
1	Wrought Steel Stockpot	4 1 8
6	Potato Peelers (Stainless Steel)	0 3 6
1	Potato Masher	0 1 6½
1	Rolling Pin, 18 by 1½ inches	0 1 0½
1	Carving Fork	0 3 0
6	Serving Spoons, 12 inch	0 5 0
9	Glass Vinegar Bottles	0 10 6
9 doz.	Tinned Steel College Cups	2 11 9
3	10 inch Enamel Basins	0 11 3
2	15½ inch Enamel Bowls	0 7 2
2	11½ inch Enamel Bowls	0 3 8
1	24 inch Butcher's Tray (Enamel)	0 7 10
2	20 inch Butcher's Trays	0 11 0
1	6 pint Enamel Jug	0 5 11
2	4 pint Enamel Jugs	0 7 4
2	2 pint Enamel Jugs	0 4 10
1	10 pint Enamel Teapot	0 9 8
1	4 pint Enamel Teapot	0 5 5
1 set	28 lb. Scales and Weights	2 11 0
2	14 inch Wire Whisks	0 4 0
1	7 inch Wire Bat	0 2 9
1 doz.	Scourers	0 4 0
2	16 inch Baking Trays 24 gauge	0 7 0
2	18 inch Baking Trays...	0 8 8
2	20 inch Baking Trays...	0 10 4
1	Knife Sharpener	0 3 0
1	Cook's Knife, 10 inch	0 8 0
1	Cook's Knife, 9 inch	0 7 0
1	Cook's Knife, 8 inch	0 6 0
1	Cook's Knife, 6 inch	0 4 6
1	Bread Knife	0 3 3
2 doz.	Honeycomb Teacloths	1 19 0
2 ,,	Check Tea Cloths	0 13 10
1 ,,	Linen Tea Cloths	0 16 11
½ ,,	Huckaback Towels	0 6 4½
4	40 ft. lengths 36 inch Coconut Matting	
1	28 ft. length 36 inch Coconut Matting	17 7 0
3	Cocoa Fibre Door Mats	0 15 0
2	Cast-Iron Foot Scrapers	1 10 0
5 doz.	Ashtrays	2 0 0
		£47 18 1½

OBITUARY

D. Barclay Niven, F.R.I.B.A.

We regret to announce the death, which took place on January 9, at Green Trees, Chobham, Surrey, of Mr. David Barclay Niven, F.R.I.B.A. He was 77.

After leaving Sir Aston Webb's office, Niven set up in practice with the late H. H. Wigglesworth, with whom he designed Hambro's Bank in Bishopsgate, and other banks in Vauxhall Bridge-road and Plaistow; the offices for the Swedish Chamber of Commerce in Trinity-square; commercial premises in Savile-row; a housing scheme in Edmonton; works for Boots, Chemists; and the Treasure House, Hatton-garden. The war memorial panel and the memorial cross at Hersham Church, Surrey, are also their work. After the dissolution of the partnership in 1927, Niven built several houses, among them one in Finchley-road and another at the Boltons, South Kensington—the latter for his own occupation. He was keenly interested in the Charing Cross Bridge proposals, and got out two schemes for a road bridge there—one in conjunction with the late T. Raffles Davison, and the other with the late W. D. Caroe and Mr. W. Muirhead. He was elected an Associate of the R.I.B.A. nearly 52 years ago, Fellow in 1900, and had served on the Council.

Mr. G. M. Aylwin sends us the following appreciation :—

The passing of David Barclay Niven will be felt keenly by a long succession of pupils and old assistants who worked with him and carried out into their lives the memory of a kindly man and an inspiring model of talent and energy.

It was my good fortune to begin my articles with Niven & Wigglesworth at one of their busiest periods when their office carried a wealth of talent, rare even in those days of good studentship. Mr. Kenyon, the reigning President at the A.A., was then the managing assistant at the office, and others who were there with him included J. H. Gray, of Watson, Salmond & Gray; S. G. Livock, Hope Bagenal, and the late L. H. Glencross, whose promising career was cut short as the result of wounds in the last war. There is not one of these who would not feel keenly the loss of their old master.

He amazed us all with his energy and quick grasp of big things. He had a habit of monopolising one of us whenever he was planning some fresh scheme, and it was that one's job merely to stand at his elbow to hear him think aloud, and raise any practical suggestions which would occur to him. He was quite content for it to be the most humble of pupils, and he would pay attention to the points raised by such a youngster as to a great contemporary. His quick wit was always at work, and he would scrap a scheme and start afresh whenever a chance remark disproved the basis of the lines upon which he happened to be working. He had a fluent touch upon the drawing board, and to watch him at work was an education.

Within the last two or three years I have been fortunate to meet him on professional work in my own neighbourhood, and it was refreshing to see how fully he had preserved his youthful enthusiasms for building in all its phases.

It is only a few months ago since he sent for me to Chobham, where he was resting after the shock of the "blitz," which caused him a grievous material loss, as well as such damage to his constitution as no doubt hastened his passing.

I found him standing up to adversity in the spirit we should expect of him, and one of his chief anxieties seemed to be how he could make some recognition of favours which he imagined he owed me. I brought away with me a delicate piece of wrought ironwork as a keepsake which will be treasured in many ways.

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The Employment of Architects.

To the Editor of *The Builder*.

Sir,—In your Notes and News of January 2 the Ministry of Works and Buildings announced that it had to a considerable extent utilised the services of architects in private practice.

Is this further announcement intended to quieten the growing feeling amongst members of the profession that their training and experience in designing and erecting buildings are not being used? This is especially the case amongst those whose pre-war practice rested on ability in carrying out works, often gained in competition, rather than on the number of assistants to whom work could be delegated. From all accounts the criteria by which the Ministry allocates work are the number of assistants now employed, irrespective of the fact that this would necessarily fluctuate with the amount of work in the office.

There have been appeals to the building industry to work as a whole, but until there is a different system of granting work, both to contractors and architects, satisfactory results cannot be achieved, unless, of course, the intention is to have several large corporations assimilating all smaller firms, the smallness of the firms to be judged on arbitrary standards and on the Biblical injunction that "Unto him that hath shall be given and from him that hath not shall be taken away even that which he thinketh he hath."

Private Practitioner (F.R.I.B.A.).

MATERIALS, OLD AND NEW

LECTURE AT THE ROYAL SOCIETY OF ARTS

A LECTURE on "Materials, Old and New," the third of a series of 12 papers on "The Post-War Home: Its Interior and Equipment," was read by Mr. Frankland Armstrong, Ph.D., D.Sc., LL.D., F.R.S., before the Royal Society of Arts, on January 14, MR. JOHN A. MILNE, C.B.E., a Vice-President, presided. We take the following extracts:—

Wood.

Wood is still the basic [indoor] material (said the lecturer), but it is fabricated in a different fashion, and the machine and the portable tool largely take the place of the craftsman. It is an age of plywood and veneer with a cellulose spray finish instead of french polish: plastics are used both as binding agents and as surface finishes. Either urea formaldehyde resins or paper impregnated with a phenol formaldehyde and used in a dry state serve to bond the layers of plywood together—there are British Standard Specifications for both. The trick is to use as little glue as possible, and spreaders or brushes tend to apply more than the optimum amount. Hence the discovery that the glue can be foamed up to occupy double its volume before it is poured into the spreader. Such facts illustrate the intricate nature of the modern wood industry.

Plywood sheets and veneer are cut from the log by special tools in a manner that produces no sawdust, so that there is an absolute minimum of waste: hence a very much higher proportion of the whole log is turned to useful purpose than in the old days. Small standardised lengths are cut in such a way that they can be used as common components of many articles. As a consequence, furniture is produced which is inexpensive, good to behold and largely suited for the modern small rooms—its life period is probably satisfactory, having regard to the changes in fashion.

Cellulose finishes are applied with skill to give the desired effects. The basic timber comes from the Baltic or Canada (birch); there is still a vogue for oak. Empire timbers of great beauty are beginning to appear, but their use is mainly confined to decorative purposes such as public rooms and on the *Queen Mary*.

Plastics.

Among really new materials for the house, the greatest expectation is, perhaps, fixed on plastics. These are a most varied class of substance made by the chemist which can be moulded while plastic into the most complicated shapes, and then fixed permanently in this form, generally by heat treatment.

The industry is quite a new one; it really dates from the discovery of Bakelite, in 1900, by Dr. L. H. Bakeland, but it is progressing at a surprising rate. There are several types of plastics made from phenol (coal tar), from casein (milk), or from chemicals which originate from acetylene (calcium carbide), and, indeed, many other chemical raw materials. Our telephones are made of the first of these; the last give transparent products resembling glass which can even be made into optical lenses and are unbreakable. The electrical and mechanical properties of the plastics can be varied over a very wide range, and they lend themselves to the production of highly decorative articles where design is rendered not so limited or exacting as with many other materials of construction. As veneers on the surface of wood they are used extensively for certain qualities of furniture—as table tops, for example, they have the merit that they are not marked by hot articles. It is to be expected that they will be used more and more in the house in all manner of ways—for telephone equipment and vacuum cleaners, for laminated plywood with weather- and moisture-resisting qualities, for insulation and innumerable other purposes.

Wall Coverings.

Cellulose from wood has come to the help of the textile industry: it is also the basis of the paper industry, including the manufacture of wallpapers, a branch in which this country excels. There is ample scope for art in their design, but developments are also to be expected along the same lines as in textiles, including the use of synthetic resins. New materials, even if they are based on the old, are therefore certain in the paper industries.

The covering of walls is a highly competitive question—paper, paint, wood and various forms of wallboard all compete.

In the future, the heat-insulating value of such coverings is likely to be taken much more into account, since the rising cost of fuel will render it necessary to prevent loss of heat from a room. Acoustic values may also have to be considered if the habit of living in flats spreads. Materials, such as calcium sulphate, asbestos, cork and similar fillings come under consideration, though for a long time the cheaper houses will have to rely on wallpaper. The whole subject of wall covering is of such magnitude that it needs separate treatment.

A word must, however, be devoted to the fibre board industry. Cellulose, largely recovered from waste paper, is run to a thin sheet, which, a short time after preparation, is stuck to a second sheet by means of silicate of soda: the process is repeated till a board of the necessary thickness is obtained and the whole is compressed by passing through rollers. The surface of the board can be finished in various ways, for example, by the application of a synthetic resin to make it waterproof. Such boards have great strength and many other desirable properties. They are of value inside the house in an increasing number of ways, and form one of the most promising of the cheap new materials, provided always that the householder treats them with proper care.

Paints.

The value of paint to the household requires no emphasis; paint acts as protection alike to metal, stone and woodwork. The paint industry is developing rapidly, thanks to new materials and new methods of application. Titanium oxide has come to aid lithopone to produce white, organic solvents replace turpentine and make spray painting feasible, other chemicals act as plasticisers and cause quick setting. The synthetic resins are also helpful both to supplement the natural resins and to give novel effects. Much is to be hoped in the future from the use of paints internally in the house to give effects of considerable permanenece and high decorative value. Paints, as is well known, owe much to linseed oil, a substance which is the basis of linoleum. The economic covering of the floor by a material which is both durable, warm and decorative is a major problem in the house. New materials are constantly coming forward; linoleum is supplemented by rubber, and by the magnesium oxychloride and similar floorings now used in offices, which may in time reach flats and houses.

Glass.

Glass will be more widely used as a building material soon; there are toughened varieties at which stones can be thrown with impunity, and window glasses which cut out the heat rays but let through the health-giving ultra violet rays of the sun. The transparent synthetic resins are also going to supplement glass; at the Chicago Fair there were rooms in which floors, tiles, wall panels, mouldings and most other items were made of vinylite plastic. Such material is not yet for the lower-priced house, but it will come once people have learned to take care of it. These materials have value in being more permanent, requiring less repair and cleaning, and therefore soon justifying their higher first cost. It is, perhaps, all-important that some influence should be exercised over design, so as to keep it on sound lines—new materials can become the sport of the exotic, as witnessed in the use of stainless steel in the cocktail bar.

Metals.

The metals are going to provide numerous new materials for the home. The applications of stainless steel and aluminium are as yet only in their infancy, particularly as both will become less costly. There will be developments in enamelled ware, as indicated by the pleasing appearance of the modern gas cooker, and a great variety of alloys—light and heavy—are awaiting application to the building trade when the needs of the aeroplane have been satisfied; the main drawback of corrosion, which applies to most metals, may be solved by these.

It is not for me to discuss form or design or decorative value of materials, but at least it can be said that the new materials lend themselves better to good design when mass-produced than the old. It should be possible to produce simple good art, even for the low income household: our Society can play its part in setting the standards. I believe the shops are more than willing to co-operate, and by display of the right stuff, to encourage its purchase.

SOCIETIES & INSTITUTIONS

UNIVERSITY COLLEGE, LONDON.

Award of "The Builder" Prizes.

Professor A. E. Richardson reports that the competition for *The Builder* prizes in the Department of Architecture was as keen as ever this year, and, on the opinion of the jury, the University College Committee has approved the awards as follows:—

Senior Prize (£2 10s. each).—Mr. F. R. Greenen, Croft Lodge, Barton-road, Cambridge, and Miss Rachel Caro, Barford, Churt, Surrey.

Junior Prize (£2 10s.).—Miss Anne Field, Boscarney, Poughill, Bude.

£1 5s. each: Mr. H. B. Chandler, 46, Worcester-road, Sutton, Surrey; and Mr. J. H. Staplin, The Cottage, Charleston, St. Austell, Cornwall.

INSTITUTE OF QUANTITY SURVEYORS.

The inaugural meeting of the North of England branch of this Institute took place at the County Hotel, Carlisle, on December 13. A well-represented and successful meeting was held under the chairmanship of Mr. J. Gregg, and the following were elected to serve on the committee: Messrs. J. Gregg, J. Moonie, G. Kirkbride, E. Robinson, and W. J. Martin. Mr. N. O'Dair, of 57, Knowe Park-avenue, Stanwix, Carlisle, has been elected honorary secretary.

TIMBER ECONOMY

MINISTRY OF WORKS RECOMMENDATIONS

In order to secure the greatest possible economy in the employment of timber, the Ministry of Works recommends certain practices in regard to its use. These recommendations are in use in Government building departments, and it is suggested that local authorities might follow the procedure where they have not already taken action on parallel lines.

Economies are listed under 15 heads as follows :—

A. The omission of timber and its substitution by other materials which are home-produced and in better supply.

B. The omission of timber or its cutting down where only used for trimmings or finishings.

C. Simplification of design and general cutting down of dimensions of timber in joinery.

D. The substitution of thin plywood on light frames for solid timber.

E. The use of home-grown hardwood in place of imported timber.

F. The utilisation of poles and coppice wood instead of square-edged timber.

G. The general cutting down of dimensions of timber in construction and the wider spacing of constructional timbers.

H. Timber economy in shuttering.

J. The omission of new timber from dunnage.

K. Utilising defective timber where defects do not affect the purpose.

L. Saving on conversion by utilising stock-size ply.

M. Saving on conversion by utilising stock timber dimensions.

N. Light roof trusses and purlins.

O. Staircases.

P. The utilisation of sawdust, wood chips, sanding flour, wood-flour and shavings.

From these sections we take the following extracts :—

A.

Partitions.—These are still too often constructed with timber studding. Brick, hollow tile or breeze slabs should be used wherever possible. Where timber framing is considered essential, the members should not exceed 3 in. by 1 in., but 2 in. by 1 in. will suffice in certain cases. When covered with sheet material such as plaster-board, both horizontal and vertical members should be designed to fit the standard dimensions of the sheeting material. Generally, studs should be at maximum of 24 in. and minimum of 18 in. centres.

Window boards.—These, where needed, should be in cement, tile or other suitable material.

Floors.—In cases where a wood-block floor would normally be used, non-magnesite block composition flooring forms an efficient substitute. It has been laid in a number of schools, hospitals and churches, and was recently inspected in an L.C.C. school where, after nearly four years' wear, it was in excellent condition. In addition to non-magnesite "block" composition floors, there are available numerous hard-wearing continuous floors for laying direct on to concrete. Some contain latex, which gives a slight resiliency. It is claimed that these are entirely unaffected by immersion in water for long periods.

Tank casings.—For interior use, these should be constructed of wallboard, plasterboard or other composition material set in grooves or nailed to light frames. With very large tanks, horizontal

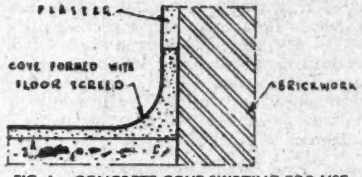


FIG. 1.—CONCRETE COVE SKIRTING FOR USE IN BUILDINGS WITH PLASTERED BRICK WALLS AND CONCRETE FLOORS.

framing rails may be required, but there is never any necessity to use boarding. For external use, construction should be as described, but the cladding should be of asbestos packed with sawdust for heat insulation or of woodwool board rendered against the weather.

Access doors, both vertical and horizontal, frequently may be constructed in the manner described in the previous paragraph.

Door and window surrounds and thresholds.—Wider use of concrete door frames and window surrounds and thresholds is recommended. The timber usually employed for door frames and window frames is of large dimensions which it is particularly desirable to conserve.

Door frames.—In certain buildings, particularly brick-built sheds, outhouses and air-raid shelters, there is no reason why door frames should not be omitted entirely and the doors hinged direct to concrete "bricks," constructed with under-cut wood plugs to take the screws of the hinges. There are also on the market certain garnet hinges with lugs for bedding direct into the joints of the brickwork. A plugged "brick," too, could be used to take the "shoot" of the door lock and bolt. Thresholds, also, should be of concrete.

Post and concrete fencing panels of reinforced concrete are both available and should be used wherever feasible instead of wood.

Lavatory seats.—Where not obtainable in wood from stock should be purchased in the various plastics now available.

Bicycle racks.—These should not use any timber. A patented type is constructed by making the floor of precast concrete slabs grooved to take the wheel of the bicycle.

Edges to paths and pavings.—Unfortunately, these are still seen in wood. Brick, tiles or concrete will serve better and should be used.

Pipe and cable trenches.—These should be covered in tiles or precast concrete. No wood is required.

Water-waste preventers (lavatory cisterns) should never be constructed of timber.

B.

Architraves.—Where these are really essential, ¼ in. by 1½ in. or 2 in. ply is enough to serve the purpose. Moreover, the ply is often available from offcuts. It should be ordered from the factories prepared and cleaned up ready for use.

Architraves or joint-covering fillets.—In most cases both internal and external joint-covering fillets can be omitted entirely. A most satisfactory substitute is made by covering over the joints with scrim. Internally, gauze bandage scrim can be painted on and is most effective. Alternatively, it may be glued. Where used externally, it should be coated with mastic.

Fanlights.—Where not required for ventilation should be fixed or glazed direct without opening frames.

Skirtings.—Where required at all, these should be cut down to a fillet, say, 2 in. by ½ in. In unplastered brick buildings with concrete floors, skirtings, though often used, serve no useful purpose and should be omitted. In buildings with concrete floors and plastered brick walls, a concrete cove could be formed and is superior from the hygienic point of view. (See Fig. 1 showing the detail.)

Backboards.—In many cases can be omitted entirely, and fittings such as w.w.p. brackets, escape tools, fire-equipment brackets, etc., plugged direct to walls.

Internal pipe cases.—Often these can be omitted entirely. Where necessary materials other than solid timber should be used.

Fitments.—In many cases a shelf or shelves with curtain front will act as substitute for a fitment, but where the latter is necessary, dust-boards should be omitted from drawers and drawer-backs made three-quarters of an inch shallower than fronts and sides. Fitment backs should be omitted.

Fascia and barge boards.—These should not be used for effect only. Unless they are required constructionally to prevent rain entering between the wall and the roof, they are a luxury which can well be omitted in war time.

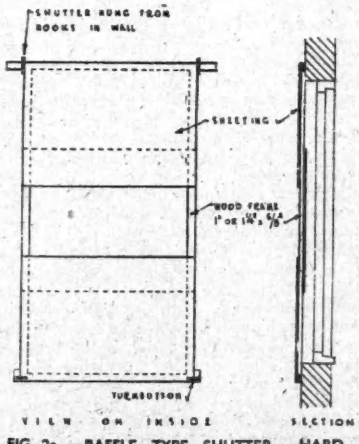


FIG 2a.—BAFFLE TYPE SHUTTER. HARD BLACK FELT MAY BE USED FOR THE SHEETING.

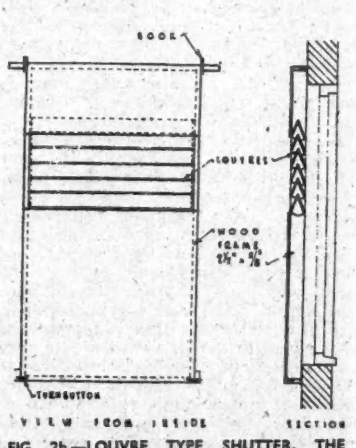


FIG 2b.—LOUVRE TYPE SHUTTER. THE LOUVRES ARE FORMED OF STRIPS O HARD FELT.

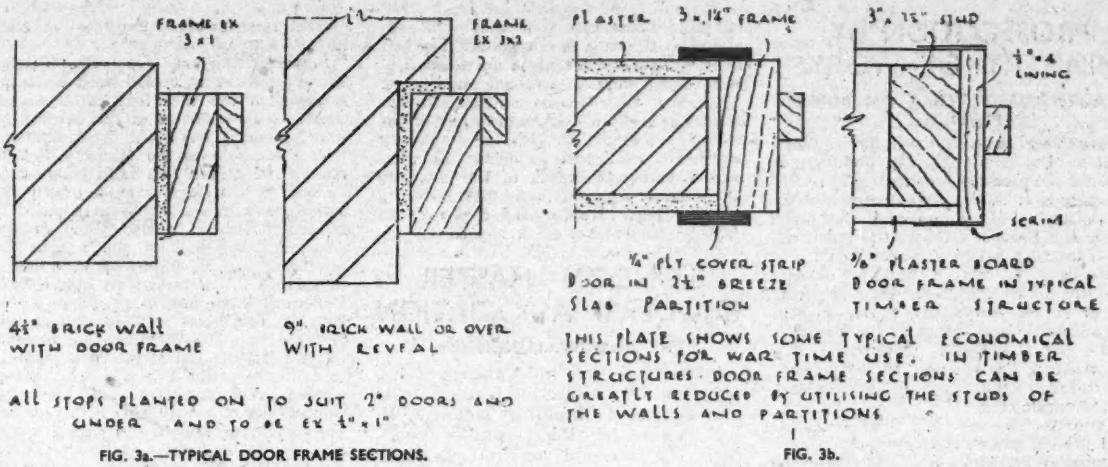

FRAME EX 3 x 1
FRAME EX 3x3
PLASTER 3 x 1½" FRAME
3" x 1½" STUD
1" x 4 LINING
SCRIM
4½" BRICK WALL WITH DOOR FRAME
9" BRICK WALL OR OVER WITH REVEAL
¼" PLY COVER STRIP DOOR IN 2½" BREEZE SLAB PARTITION
⅜" PLASTER BOARD DOOR FRAME IN TYPICAL TIMBER STRUCTURE
ALL STOPS PLANTED ON TO SUIT 2" DOORS AND UNDER AND TO BE EX 1" x 1"
THIS PLATE SHOWS SOME TYPICAL ECONOMICAL SECTIONS FOR WAR TIME USE. IN TIMBER STRUCTURES DOOR FRAME SECTIONS CAN BE GREATLY REDUCED BY UTILISING THE STUDS OF THE WALLS AND PARTITIONS

FIG. 3a.—TYPICAL DOOR FRAME SECTIONS.

FIG. 3b.

C.

Black-out shutters.—Some designs are most wasteful in timber as well as labour and fittings. Two types of simply designed and fixed ventilating shutters are shown on Figs. 2a and 2b.

Black-out blinds.—Several have been examined. One type made of specially toughened sisalkraft seems effective without being costly and uses no timber.

Attention is drawn to the recommended dimensions and sections for *doors* set out in the War Emergency B.S.S. for Doors, No. 459/1941 (issued by the British Standards Institution).

Stock joinery, particularly doors, should be used wherever possible, and new timber should not be used for doors where stock doors are available.

Not all *skeleton flush doors* are equally economical in timber. The majority use about 1¼ cu. ft. A strong and economical design of flush door is in existence, the timber content of which for a 6 ft. 6 in. by 2 ft. 6 in. door, including the ply and all waste, is .811 cu. ft. as compared with 1.33 cu. ft. for the average flush door. These doors can be obtained through the Supplies Division of the Ministry of Works, who will be pleased to meet the demands of all Government Departments. When faced with resin-bonded plywood, these doors may be used in external situations and take the place of the panel and the ledged and braced varieties, which use more than double the amount of timber.

Window frames and door frames.—It is very difficult to generalise on what should be maximum dimensions, because very much smaller sections can be used in timber-framed than in non-timber-framed structures. In the former the constructional timbers can be used to advantage. Typical door-frame sections for timber and non-timber buildings are illustrated in Fig. 3a and 3b. Window sections are now being standardised by the Director of Standardisation and full detailed sections will be available shortly.

Shelving.—Even in slatted shelving some is extravagant and some economical. Often where shelving is to be used for large packages the spaces are only half the width of the slats. For general purposes 1¾ in. wide slats with equal width gaps are effective, and if division into bins is required, labour and machining can be saved by using the interlock method. Fitments of various kinds formerly made with glazed doors can, in most cases, be made open in war time. Where fitted with shelves their normal thickness may, in most cases, be halved, or even quartered, by applying deep edges to ply shelves.

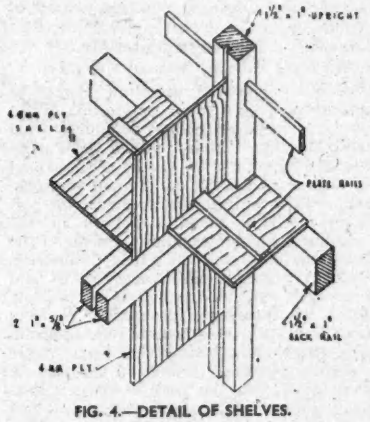


FIG. 4.—DETAIL OF SHELVES.

Fig. 4 shows a suggested simplification of a shelf fitment—part of a dresser which shows a timber saving of 70 per cent. over pre-war construction.

Table legs should not be tapered. The operation wastes labour as well as material. The average scantling of the leg will suffice in most cases.

D.

Light frame construction.—It is, of course, generally recognised that timber should not be used for floors unless this is unavoidable. Fig. 5 shows an economical method for meeting such cases. It should be emphasised that the strength of the panels is greatly increased when they are pressed into the framing instead of being merely nailed or glued. For *cladding* purposes, or panels, plywood from $\frac{3}{16}$ in. to $\frac{3}{8}$ in. thick may well be used instead of boarding 1 in. or 1¼ in. thick. A shipload of plywood will cover four to five times as much area of walling, floors, counter-tops, etc., as will a similar cube of solid timber. *Counter-tops, etc.*—It is perfectly practical to make these of resin-bonded waterproof ply, instead of using thick teak boards. This material is also perfectly satisfactory for *external building work*, either for walls or roofing, the joints only requiring sealing with scrim and mastic. At present it is not in sufficiently good supply as to be available largely for walling. When it is, it can be used as a structural skin on very light framing. Correctly designed, a plywood-covered hut will use no more timber (counting the ply as timber) than will be required as framing in the average "so called" non-timber hut.

Whilst it adds to labour, very great timber economy can be obtained by building up *posts* out of two small timbers and two-ply strips, so that they form boxings. Such posts will stand very considerable compression strains. Many factories have accumulations of narrow strips of ply which could be employed usefully in this manner.

(*To be continued.*)

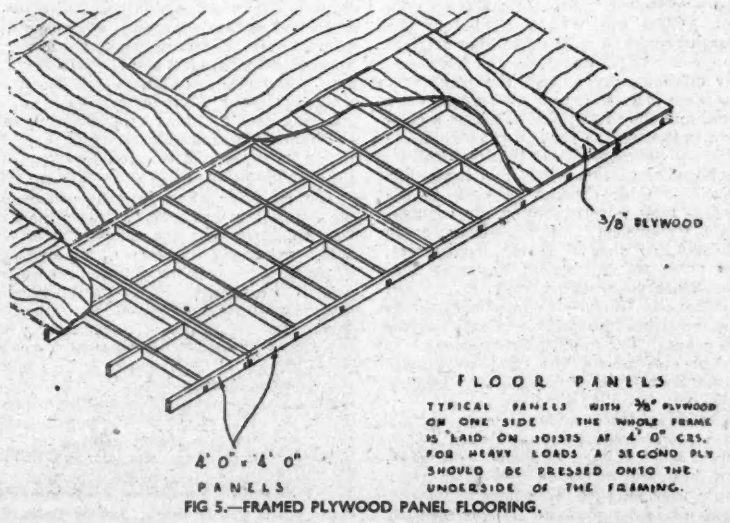

⅜" PLYWOOD
4' 0" x 4' 0" PANELS
FLOOR PANELS
TYPICAL PANELS WITH ⅜" PLYWOOD ON ONE SIDE THE WHOLE FRAME IS LAID ON JOISTS AT 4' 0" CRS. FOR HEAVY LOADS A SECOND PLY SHOULD BE PRESSED ONTO THE UNDERSIDE OF THE FRAMING.

FIG 5.—FRAMED PLYWOOD PANEL FLOORING.

PROSECUTION BY MINISTRY OF WORKS

UNAUTHORISED WORK ON BOMBED PREMISES.

BEFORE Mr. Ronald Powell, at the Westminster Police Court, on January 8, Messrs. Wightman Mountain, Ltd., of Artillery-row, S.W., were summoned by the Ministry of Works and Buildings, under the Defence (General) Regulations, for executing between February 24 and September 11, 1941, a building or constructional operation at their printing works in St. Ann's-lane, S.W., without the authority of a licence by the Ministry.

Mr. Vincent Evans prosecuted; Mr. Lloyd Jones was counsel for the defence, and pleaded guilty to a technical breach of the regulations.

Opening the case, Mr. Vincent Evans said the defendant company had business premises in St. Ann's-lane, and these were badly damaged by fire as a result of enemy action in November, 1940. In the early part of March a licence to rebuild was applied for, the approximate estimate of the cost being £2,600. The quantities of wood, bricks, cement, etc., required were set out. That application, after full consideration, was refused in April, as also was a second application, in view of the urgent necessity of conserving building materials. On September 11, two inspectors of the Ministry visited the works and found extensive building operations had been carried out. One sympathised with any firm unfortunate enough to have had their premises damaged, said Mr. Evans, but in the present case the firm had simply defied the regulations, and adopted the attitude that they were the best judges as to whether their premises should be rebuilt or not, without any regard to national requirements.

Mr. Lloyd Jones urged that the business was not that of an ordinary printer. H.M. Stationery Office in particular was a customer, and so important was the work regarded that defendants had been granted a 25 per cent. increase in their allowance of paper. They did their utmost to get their premises in some sort of order, and proceeded with the work, and it was not until April 21 that they understood their application had been unsuccessful. They were completely dumbfounded, and sent in a further application, as they concluded that by some mischance or apprehension the first had been overlooked. There remained to be done £6,000 worth of work before the premises could be restored to their original condition. What was done was the necessary minimum to protect the machinery and make it possible to carry on with their work, and they felt there had been a complete failure on the part of someone in the Ministry to appreciate the application. He hoped the Court would find it possible to excuse their conduct in view of the services they were rendering the country.

Mr. Greenwood, licensing officer to the Ministry, in answer to the magistrates, said there was no reason to doubt that defendants were doing work of national importance. When the application was received from defendants certain advice was taken. The application form made it possible to inform the Ministry of any contracts with other Government Departments.

The Magistrate said the company admitted contravening the regulations—they started what in their opinion was a necessary building operation for their work before they applied for a licence, imagining it would be granted. It was refused, but notwithstanding that they went on, and what they now said was that they had done wrong, and meant to do it, as they were doing work of national importance. That was their reason and excuse for what was really a deliberate breach of the law. It was not for him to make any comments. He had to deal with what was a deliberate breach of the law, and there must be a fine, and not merely a nominal one. He imposed a penalty of £50, but should not allow any costs.

LONDON MASTER BUILDERS' ASSOCIATION

THE ANNUAL LUNCHEON.

THE advice that the building industry should give increased attention to the subject of building management was given by MR. GEORGE HICKS, M.P. (Parliamentary Secretary, Ministry of Works), speaking at the London Master Builders' Association's annual luncheon at the Connaught Rooms on Tuesday. The President (Mr. C. C. Trollope, F.I.O.B.) was in the chair.

Such an improved standard should be accompanied by a wider recognition of the need for increased salary standards from top to bottom. "This," added the Parliamentary Secretary, "must be accompanied by bigger site staffs and by an improvement in the welfare arrangements for personnel. The standard of welfare in the building industry has fallen far short of the standards obtaining in other industries. Canteen arrangements, transport to and from the job, the provision of waiting space for transport, protective clothing from weather: these aspects require attention and have, indeed, been more vigorously pressed forward in the past 12 months than in the past 50 years. It is not molly-coddling; those that adopt such reasoning merely refuse to recognise that efficiency can only be secured by proper treatment of the individual builder, engineer and craftsman."

In the course of a review of the industry, Mr. Hicks said that the searchlight of public opinion was turned increasingly on the building industry which was growing in economic importance. Organisation was required, organisation by people who wanted to see not how much they could take out of the industry but how much they could put in. There had to be an increasing desire to see the other man's point of view. To-day, Lord Reith's job was to align builders and operatives to the war effort and certain changes of practice were asked for and, in fact, much domestic territory had been invaded and cherished rights and privileges assailed. The Ministry wanted to thank the industry for so readily adapting itself and for its co-operation, and the industry might well ask itself whether in its experience it wanted to revert to pre-war procedure when the war was over.

The need for improvement in management problems was complicated by the fact that in peace time the industry operated with extremely heavy unemployment. Were we going to allow that after the war? One of the results of that unemployment was that the standard of workmanship to-day was below the average. How were we going to deal with that problem in peace time? "This question," declared the speaker, "should be a matter for special management, not a matter of mere criticism. Extremely skilful management is required, and also considerable inventiveness for improving the output. The country's demands from the industry now are considerable, but after the war unprecedented calls will be made. Let us make the present time an opportunity to get ready for it."

Proposing the toasts of "The Guests," THE PRESIDENT welcomed Lord Reith and referred to the fact that those he had chosen to be members of the Central Advisory Council no doubt were rendering very great help to the Ministry. "We understand it is in your Lordship's mind," he added, "to further extend your consultations with the representatives of the industry. May I assure your lordship, speaking on behalf of the region comprising organised employers who execute in value a larger proportion of the building work than any other region in the country, our desire to assist you in every possible way in obtaining the maximum effort from the industry. This assistance is available to the fullest extent that the elected representatives are given the opportunity of consultation with your lordship and your Ministry in regard to your views and plans, not only on all problems now affecting the industry but in preparation also for those which will face us all when hostilities are concluded. Builders are a very stubborn race in more ways than one, but it is true to say that once their confidence has been gained there is no more loyal body of men."

One of the many problems understood to be discussed by the Council was the question of training in the arts and crafts of building. This was a matter of the greatest importance, and the L.M.B.A. were very anxious that the result of the conference should give the widest encouragement to those desiring to join the industry with a view to maintaining craftsmanship in the truest sense.

In the conferences in London with the Ministry of Works, they had sometimes heard the word "mobilisation." In the earlier months of last year builders were asked to mobilise in certain directions; they put their backs into setting about the task and the Ministry had expressed their approval of the great amount of thought and work which L.M.B.A. members had given to this problem. Mobilisation carried with it the corollary of "demobilisation" or "remobilisation" after the war. In the post-war period, apart from the restoration of the devastated regions, there would be plenty of work waiting to be done. Whether restrained or not, the task of reconstruction would, it was hoped, create an atmosphere for the maintenance of a steady and not spasmodic volume of employment, and thus assist the general economic position.

The L.M.B.A. had further strengthened their organisation; during the past year they had more than doubled their builder membership, so that even if the work which they were called upon to carry out during the war was to be lessened, they might be able to assist in bringing back into employment as many men as possible during the process of "demobilisation."

Sir ERNEST GOWERS and ADMIRAL SIR EDWARD EVANS paid memorable tributes to the work of the Rescue Parties in responding to the toast of "The Civil Defence Services," proposed by Mr. W. E. RICE (Senior Vice-President, L.M.B.A.), and the toast of "The R.I.B.A." was submitted by Mr. H. C. HARLAND, F.I.O.B. who hoped that the Institute would impress on young architects the need to consider their plans carefully, to complete their half-inch details and specifications before they gave them to the builders and asked for a price. Mr. W. H. ANSELL, responding, referred to the small builders and their men who, he said, were the salt of the earth. Speaking of builders generally he hoped that they would not be left in a position analogous to that of the

manager of a multiple shop. Builders welcomed control when it was well administered, but good building and improved science were not enough; there must be good designers, and here it was the architect's job to plan and lay out buildings. It was essential that the architect should be used to fullest capacity, for the buildings of the new England were the works that would show to generations to come what kind of men we were to-day.

A toast to the Chairman was proposed by Mr. C. G. AMMON (Chairman, L.C.C.).

Members and guests present included: Lord Reith (Minister of Works), Major General K. C. Appleyard, Major E. G. Bax, Sir Henry Brand, C.B.E., Major-General H. C. Cole, Ald. C. W. Key, Sir Ernest Simon, Sir J. Walker-Smith, Sir James West, Messrs. B. C. Aldous, Hugh B. C. Beaver, T. P. Bennett, C.B.E., A. B. H. Colls, R. Coppock, C.B.E., Alan Davson, J. H. Forshaw, J. S. Galbraith (Hon. Treas., L.M.B.A.), George Gee, E. Grace, H. T. Holloway, A. W. Kenyon, H. S. Kerr, G. H. Parker, S. Pointon-Taylor, J. M. Stephenson, Sydney Tatchell, Norman H. Walls, E. H. Wall (Asst. Sec.) and W. J. Rudderham (Sec., L.M.B.A.).

CONTROL OF BUILDING MATERIALS

The Director of Roofing, Ministry of works, makes this announcement :—

Roofing Slates.

It must again be emphasised that no slates above those of 14 in. in length may be sold except on production of a certificate from one of the officers duly authorised, and that, in the event of slates so certified being supplied from stock held by a merchant, replacement of the amount supplied cannot be made.

Supplies of the smaller sizes can still be obtained without certificates, but in order that prior despatch may be given to consignments of small slates required for air-raid damage or other urgent needs, a certificate that they are required for such purposes can be obtained where necessary from the Assistant-Director of Emergency Works or Emergency Works Officer for the area and sent with the order.

A booklet by Messrs. G. T. and John Setchell has recently been published, which deals comprehensively with the method of using small-sized slates for repair work. Copies of this booklet can be obtained from Setchell and Sons, Ltd., Delabole, Cornwall.

The vital need to economise in transport makes it essential that, wherever possible, slates should be supplied from the group of quarries nearest to the point of delivery. Scottish slates should be used whenever possible in Scotland, and Westmorland or Lancashire slates in the Northern Counties. The quarries have been instructed (also on transport grounds) that Welsh slates are not to be supplied to the counties of Devon or Cornwall.

Plasterboard.

As from January 15, the system of accepting certificates from local authorities is cancelled, and the following system of priority and certification applies :—

1. Government orders will continue to receive first priority from the manufacturers. They must be substantiated with accurate Government contract numbers and departmental symbols. Orders within this category for quantities greater than 600 sq. yds. will be delivered only to the contract site, but smaller quantities should be supplied from merchants' stock, if any.

2. Orders for Repair to Air-raid Damage, A.R.P., General Maintenance Work, Storm Damage and other Work of National Importance.—Orders within this category, of 150 sq. yds. or more, will be supplied only against an original certificate, which will be issued by the following :—

(a) Air-raid damage (or other enemy action).—(i) By the A.D.E.W. or E.W.O. of the Ministry of Works of the area concerned. (ii) By the Area Officer or Chairman of the Local Reconstruction Panel of the Emergency Services Organisation of the Ministry of Aircraft Production for industrial buildings in which the Ministry of Aircraft Production is concerned.

(b) Maintenance Work and Storm Damage Repairs.—By the A.D.E.W. or E.W.O. of the Ministry of Works of the area concerned.

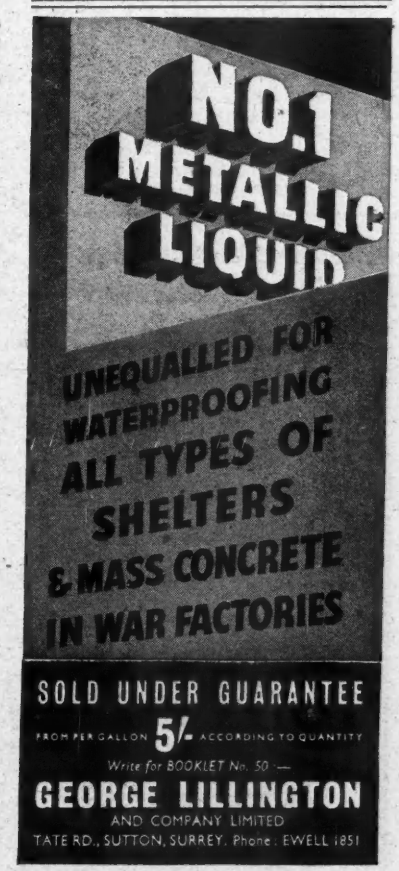
(c) Government Buildings or Buildings in which a Government Department is Interested.—By the local responsible official of the department concerned.

(d) Other Work of National Importance.—By the A.D.E.W. or E.W.O. of the area concerned.

Orders thus certificated will receive priority after Government requirements, in the above rotation.

Concurrently with this, plasterboard being now more freely available than hitherto, a system of furnishing approved merchants with stocks, to be released against certificates, also comes into operation. All merchants on an approved list have been fully advised of the terms and conditions of the scheme, which provides, *inter alia*, for initial stocks and replacement, for minimum loads to avoid unnecessary transport, and for the keeping by the merchants of a stock record book showing all receipts into and deliveries from stock.

Such stock books, and the certificates supporting deliveries ex stock, are open for inspection at any time by certifying officers or their representatives. It is essential in the national interest that the amount of plasterboard so dispersed over any area can, in the event of an emergency, be instantly ascertained. The keeping of this stock record book must, therefore, be regarded as vital, and the names of merchants failing properly to keep this record may be deleted from the approved list.



Wallboard.

Wallboard is controlled by the Paper Controller (in consultation with the Ministry of Works), Great Western Hotel, Reading. The system in force operates through licences whereby, in the case of the home-made product, merchants on the books of the manufacturers are empowered to hold stocks releasable : (1) Against repairs necessitated by enemy action and, subject to available supply and the furnishing of requisite certificates of the use to which the wallboard has been put, such stocks may be replenished periodically; and (2) against a specific authority from the Paper Control.

For Government requirements, application for licences to deliver are submitted by the producer or importer concerned to the Paper Controller, whether such delivery is against direct contracts or through a merchant.

It is found that a number of the merchants holding authorised stocks fail to render periodical returns to the Paper Controller, whether such delivery is against direct contracts or through a merchant.

It is found that a number of the merchants holding authorised stocks fail to render periodical returns to the Paper Controller. These returns are of vital importance, and should be made regularly and promptly.

As regards imported wallboard, the importers themselves disperse this in their own warehouses. Imported board is not generally dispersed amongst merchants and hard board is released only in exceptional cases.

As with plasterboard, the uses of wallboard are stringently confined to those purposes for which it is essential.

Asbestos Cement.

To avoid the excessive strain placed upon War Agricultural Committees by a large number of requests for certificates from farmers requiring a few sheets of asbestos cement, it has been agreed to accept a simple declaration from farmers that the material is required for an agricultural purpose. Such declarations should be passed by the merchant to his manufacturer with his order.

The procedure of laying down dispersal stocks in merchants' hands in target areas throughout the country has been extended to cover a number of additional merchants.

Roofing Felt.

There is still no restriction upon the purchase and sale of this material, except that in order to prevent undue accumulations of stocks in any one area, it has been decided to limit the quantity which a merchant may carry to 250 rolls of 24 sq. yds. each, or their equivalent.

To conserve the national supply of bitumen greater quantities of pitch felts are being manufactured, and merchants can be of great assistance by recommending the use of this type wherever possible.

Commodities Made of Iron and Steel.

These come under the Iron and Steel Distribution Scheme drawn up by the

Ministry of Supply (Iron and Steel Control).

Authorisations may be issued by the Ministry of Works to manufacturers of the builders' goods in the list below for the essential requirements of the home civil trade (excluding requirements for work subject to a building or maintenance licence under Regulation 56A). Goods made under these bulk authorisations are available for distribution to merchants for sale for essential purposes, without further authorisation.

Stoves, grates, ranges and cooking apparatus (solid fuel). Oil heaters and cookers.

Electrical heaters of a fixed type (*i.e.*, incorporated in the structure of buildings).

Cast-iron hot-water boilers (including gas-fired boilers used for central heating), radiators and radiator fittings.

Galvanised furnace pans.

Cast-iron baths, sanitary cisterns and other sanitary cast-iron and steel goods.

Galvanised steel rain-water goods.

Pumps for domestic and agricultural water supplies.

Builders' ironmongery: Gate fittings, door springs and checks, door bolts (wrought iron), door plates, door letter-boxes, handles and knockers, locks and hinges (except furniture locks and hinges and locks and hinges for cases), latches, hasps and staples, shelf brackets, other items of builders' ironmongery.

Steel flush pipes.

Expanded metal for goods for purposes not covered by the Ministry of Home Security and not being machine-guards.

Metal windows and window fittings, skylights, roof lights, ventilators and ventilator frames.

Exterior fencing.

Steel ladders for attachment to chimneys or buildings.

Cable racks and hangers.

Cowl ventilators.

Wall ties.

Slating clips and other roofing fittings.

Rolling shutters and fittings.

Sanitary fittings.

Gutter fittings.

Sliding door fitments.

Tanks, cisterns and cylinders (other than those of a kind commonly forming part of industrial plant).

Ventilating and air-conditioning equipment (fixed type) other than that required for processing purposes.

Under a recent announcement of Iron and Steel Control, individual orders for manufactured articles containing 1 cwt. or less of iron and steel may now be obtained without authorisation for all essential purposes including Government or other orders for which hitherto an "M" Form was issued. The stock of the merchant or wholesaler used in the execution of their small orders being replaced by bulk authorisations to the manufacturers. In making application to his suppliers for replacement the merchant will be required to furnish a certificate.

This certificate should not be used for small orders for iron and steel in the forms listed in the first Schedule to the Control of Iron and Steel (No. 15 Order, 1941, as amended by the No. 16 Order).

Applications by builders or building owners for authorisations to purchase finished steel and iron castings (*i.e.*, iron and steel in the forms listed in the first schedule to the Control of Iron and Steel (No. 15) Order, 1941, as amended by the No. 16 Order—*e.g.*, rain water and soil goods, cast-iron pipes and fittings and municipal castings (manhole-covers, gratings, etc.)), should be addressed to the Regional Licensing Officer of the Ministry of Works.

CLAIMING FOR WAR DAMAGE

Commission's New Explanatory Pamphlet.

The War Damage Commission has just issued a new explanatory pamphlet which, it is hoped, will be of assistance to the public. Known as C.2.×, it explains the steps to be taken in making a claim on the Commission's Form C.2, for payment of the proper cost of carrying out repairs to war-damaged houses, shops, flats, tenements or office buildings.

In simple, non-technical language the purpose of each of the questions on Form C.2 is explained, and the correct method of answering them made clear. The pamphlet gives information with regard to the evidence, in the form of builders' accounts, etc., required to support the claim; the authorised arrangements for the repayment of the fees of architects, surveyors, or other such persons employed in a supervisory capacity; and a form of authority which may be given by the claimant if he wishes the Commission to pay the money direct to his builder. Much of the information also applies to the repair of war damage to warehouses, factories, and other classes of property which are not covered by Form C.2, but by other forms issued by the Commission.

The pamphlet will in future be issued free to claimants with their claim forms, or on application to the Commission's Regional Offices. For convenience, and to save correspondence, it has been placed on sale by H.M. Stationery Office, and can be obtained from its sale offices, or through the booksellers, at one penny per copy, 50 for 3s.

Change of Address.

Messrs. Smeaton, Hanscomb and Co., Ltd., inform us with regret—since they were one of the earliest tenants—that their offices in Bush House have been requisitioned by H.M. Government. As and from Saturday, January 17, their London address will be "Aldwych House, Aldwych, London, W.C.2," their telephone number remaining the same, namely: Temple Bar 9571.

Having Secured the Contract—what about the Steel Scaffolding?

TUBULAR

—S&C—

SCAFFOLDING

For the lowest Prices apply to the Oldest Firm in the Scaffolding Trade.

STEPHENS & CARTER LTD.

The British Steel Scaffolding Co.

731-761, HARROW RD., N.W.10.

Telephone No. Ladbroke 1191 (6 lines).

TRADE NEWS

Concreting in Cold Weather.

Since all war-time building is of an urgent nature, it is of vital national importance that concrete work should continue uninterruptedly during cold weather. As temperature controls the rate of chemical reaction it follows that the lower the temperature the slower the rate of setting and hardening of the concrete, and with ordinary Portland cement at 36 deg. F. and under, the setting and hardening of concrete is delayed indefinitely.

Furthermore, if concrete becomes frozen before the final set has taken place, the water which has not yet entered into combination with the cement expands and interrupts crystallisation, and chemical action ceases. Although chemical action recommences as soon as the concrete thaws, the hardening process never proceeds again satisfactorily, and disintegration is almost inevitable.

It therefore follows that during cold spells measures must be taken (a) to prevent the possibility of the water in the concrete freezing; (b) to obviate delay in putting the concrete into use within the normal period because of its slower rate of hardening.

The basic principle of counteracting the adverse effect of low temperatures on concrete is to raise the temperature of the concrete itself when it is placed, and to maintain conditions of warmth and moisture so that hardening may proceed at the same rate as if the concrete were placed in normal temperatures of 60-65 deg. F. The simplest method to adopt is to use cement with accelerated setting and hardening properties.

Although the total amount of heat generated during the hydration of all Portland cements is approximately equal, the rate at which this heat is liberated is much quicker with cements in which the setting action is stimulated—as is the case with "417 cement."

In a series of tests carried out on 1 : 2 : 4 concrete made with this cement, with the aggregate and water mixed at 36 deg. F. and the cubes stored in water 36-39 deg. F., the compressive strength was over 900 lb. at 24 hours and 2,800 lb. at seven days. As these figures are above the average 24-hour and 7-day strengths of 1 : 2 : 4 concrete made with ordinary Portland cement in temperatures of 60-65 deg. F., it will be seen that by substituting "417 cement" for ordinary Portland cement normal progress can be maintained at temperatures of 36 deg. F. or less.

Where concreting has to be carried out under severe frost conditions, additional measures may be necesary to raise the temperature of the concrete, such as heating the water or aggregates, or both.

In order that the heat within the concrete may be conserved, it is necessary to protect the concrete when it is placed. Methods vary with the type of structure and degree of exposure. Timber shuttering helps to provide some insulation against heat losses. All exposed surfaces should be covered with either tarpaulins, beds of straw, layers of waterproofed papers, etc. Artificial heat for the purpose of maintaining warmth to newly placed concrete can be provided by enclosing the work and installing coke braziers.

The Cement Marketing Co., Ltd., The Club House, Coombe Hill, Kingston-on-Thames, will be pleased to forward detailed instructions on cold-weather concreting to any who are carrying out work during the winter months.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the head of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING.

JANUARY 19.

Donegal Vocational E.C.—Technical school, Letterkenny. C. V. McLaughlin, A.I.A.A., Letterkenny. Dep. £3 3s.

Leeds T.C.—Maintenance repairs to properties. R. A. H. Livett (A.), Housing Director, Priestley House, Quarry Hill, Leeds (A charge of 5s. per trade, not returnable, will be made for documents supplied.)

Newton Abbot U.D.C.—Work in connection with surface communal shelters. E. and S.

Southgate T.C. — Strengthening of approx. 17 brick surface shelters. B.E.

JANUARY 20.

Bideford T.C.—Adapting portion of Pannier Market for British Restaurant. B.S.

Dorking U.D.C. — Decontamination building and strengthening wardens' post. E. and S.

Erith T.C.—Conversion of school to whole-time nursery. J. H. Clayton, B.E. and S. Dep. £1 1s.

King's Lynn T.C.—Alterations to Infant welfare centre. B. E.

JANUARY 21.

Borough of Southgate T.C.—"Maycrete" hut for day nursery. B. E. Dep. £2 2s.

JANUARY 23.

Haltemprice U.D.C.—Strengthening of public and communal shelters. E. and S.

JANUARY 24.

Bridlington T.C.—Two dormitory shelters. B. E.

JANUARY 26.

Coventry T.C. — Reconstruction of (a) public surface shelters; (b) domestic communal surface shelters (flat roof type); (c) domestic communal surface shelters (arched roof type). City Engineer's Office, 9, Hay-la., Coventry. Dep. £3 3s.

JANUARY 28.

Epsom and Ewell T.C.—Lavatory accommodation at public trench shelters. B. E. Dep. £1 1s.

NO DATE.

Plymouth T.C.—Brick and concrete buildings at fire casualty depots. City Architect, Compton Park House, Tavistock-rd.

MATERIALS.

JANUARY 21.

Cambridgeshire C.C.—Road materials, etc. County S.

JANUARY 26.

Sutton-in-Ashfield U.D.C. — Road materials. S.

FEBRUARY 10.

***Manchester Central Purchasing Committee.**—Tenders for bricks for 12 months ending March 31, 1943. Director of Housing.

ROAD, SEWERAGE AND WATER WORKS.

JANUARY 19.

Newton Abbot U.D.C.—Completion of works connected with erection of supply tanks. C. Lunn, E. and S.

Oakengates U.D.C.—Five brick and reinforced concrete water supply basins. E. and S. Dep. £2 2s.

Tyldesley U.D.C.—Resetting of one bed of seven through "D" retorts. F. Peel, Gas E., Gasworks, Tyldesley.

JANUARY 23.

Bury T.C.—Concrete flagging of playground at High-school. B. E.

Coleraine R.D.C.—Repairs to roads and bridges, etc. Clerk's Office.

Rickmansworth U.D.C.—Circular steel dam on concrete base. S.

PUBLIC APPOINTMENTS.

JANUARY 27.

***Luton T.C.** — Temporary Technical Assistant. F. Oliver, B. E.

NO DATE.

***Gold Coast Government.** — P.W.D. Foreman of Works (Civil and Waterworks). The Manager, Supplementary Register, Ministry of Labour and National Service, 4, Great Marlborough-st., London, W.1. (Quote Order M.6.)

A.R.P. SCHEMES

PROVINCIAL.

Bournemouth. — Civil Defence Committee recommend acceptance of following tenders for garage accommodation subject to Region approval and B.E.: (1) F. Whitelock, £110; (3) T. Reading, £488.

Blyth.—T.C. to carry out alterations to Albion depot.—T.C. to carry out adaptation work for National Fire Service. T. Wilson is B.E.

Essex. — C.C. approved: Gas cleansing station, Colchester, at £2,939; dormitory accommodation at St. Martin's Yard cleansing station, Braintree, at £788; protected sleeping accommodation at Beal School depot, at £600.

Hereford.—E.C. propose shelter at All Saints' school.

Lancaster.—A. V. Black, Sun-st., Lancaster, secured contract for shelters for Lancaster and District Co-operative Society, Ltd. Plans by R. W. Jackson, 43, Church-st., Lancaster.

Newbiggin (Northumberland).—U.D.C. propose more shelters, and is applying to Ministry of Home Security for consent. Plans by J. Kailofer, S.

Newcastle-under-Lyme.—T.C. propose: Strengthening and repairs to domestic communal shelters at Castle-st.; improvement of school shelters; erection of wardens' post; laundry distribution centre and storage of decontamination equipment at Lower-st.—T.C. received approval of Regional Commissioner for first-aid party depots, at £1,191; strengthening surface shelters, at £3,814; entrances to basement shelters, at £225; electric heating of public shelters, at £490. Plans by A. Cotton, B.S.

Northumberland.—E.C. to erect shelters at Warkworth C.E. school, at £336. Plans by W. W. Tasker, County Offices, Morpeth, County S.

Wallsend.—T.C. received sanction from Regional Defence Commissioner to strengthen communal shelters, at £11,947.

Warrington.—E.C. seeking sanction to loan of £29,146 for school shelters. Plans by J. Y. Hughes, B.S.

Worcestershire.—C.C. have placed contract with Bridgewater Bros., Ltd., Cradley Heath, Staffs, at £6,897, for first-aid post and decontamination unit at Stourbridge. Plans by Henry Rowe & Son, Acting County Architects, 38, Foregate-st., Worcester.

FEDERATED EMPLOYERS' INSURANCE ASSOCIATION LTD. ESTABLISHED 1904

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SCRAP METAL

MINISTRY OF WORKS DRIVE.

LORD REITH, Minister of Works, announced on Monday that his Ministry had undertaken, at the request of the Minister of Supply, the job of sweeping the country from end to end of steel and iron scrap, large and small.

The need for scrap recovery is urgent. It is hoped to get 40,000 tons a week from this national drive, to be handed over to Lord Beaverbrook for steel works, in addition to the normal supplies of scrap which arrive through scrap merchants, who will carry on their business as hitherto.

The campaign will fall roughly under three heads:—

(a) A National Survey of all idle iron and steel in lots of over three tons in any one place. This survey is being accelerated and it will be made compulsory to disclose all such metal.

(b) Clearance of Local Dumps to which lots of less than three tons should be sent as quickly as possible.

(c) Acceleration of the collection of Railings.

Under (a), the national survey, will be included disused pithead gear, bridges, rail tracks and factory machinery, as well as the large accumulations of loose scrap.

Under (b) will be taken the small quantities in yards of all sorts, from small builders and factories with no regular scheme of passing scrap back to the foundries, as well as the scrap turned out by private householders and others. Local dumps will all be cleared, but each village must not think that its own dump will be cleared to-morrow. The dumps are going to be taken county by county, and it may be some months before the turn of any particular county comes along. What we want is a steady, regular flow to the foundries, and that can be secured only if each town and village starts to fill up its dumps *now*, ready for clearing when the foundry needs it. The Ministry asks that the mole-hills should be turned into mountains of scrap, and appeals to the leading men and women in town and village to see that everything is contributed to the war effort. The war machine must be fed.

Under (c) the collection of railings will be continued and accelerated. The Ministry asks for the help of all in this difficult task.

The Ministry will start county sweeps almost at once. On January 21 three counties will be tackled simultaneously—Essex, Wiltshire, and Cumberland—all rural areas. Every householder is asked to spring-clean the house of all useless metal, from food tins to broken mangles and bicycles. Every garage should turn out its old plant, wheels, rusty nuts and bolts. Every farmer should clear his barns of old machinery.

Mr. G. M. Carter, of Messrs. George M. Carter Erectors, Ltd., of Newcastle, has been appointed Director of Demolition and Recovery, and is in charge of all this work for the Minister of Works. Inquiries should be addressed to him or to any local office.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st JUNE, 1941

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.
Aberavon	1/10½	1/5½	Clitheroe	1/10½	1/5½	Isle of Thanet	1/8½	1/4½	Saxmundham	1/7	1/3
Aberdare	1/10½	1/5½	Cobham (Surrey)	1/9½	1/5	Isle of Wight	1/8	1/3½	Scarborough	1/10	1/5½
Abergavenny	1/10½	1/5½	Colchester	1/10	1/5½	Keighley	1/10½	1/5½	Scunthorpe	1/10½	1/5½
Abingdon	1/9	1/4½	Colwyn Bay	1/9½	1/5	Kenilworth	1/10½	1/5½	Selby	1/10½	1/5½
Accrington	1/10½	1/5½	Congleton	1/10	1/5½	Kettering	1/10½	1/5½	Sevenoaks	1/9	1/4½
Aldeburgh	1/7	1/3	Coventry	1/10½	1/5½	Kidderminster	1/10	1/5½	Sheerness	1/8½	1/4½
Aldershot	1/9	1/4½	Cranbrook	1/8½	1/4½	King's Lynn	1/8½	1/4½	Sheffield	1/10½	1/5½
Alfreton	1/10½	1/5½	Cranleigh	1/8½	1/4½	Kirkham	1/10½	1/5½	Shipley	1/10½	1/5½
Alnwick	1/10	1/5½	Crawley	1/8½	1/4½	Knowle	1/10	1/5½	Shoeburyness	1/10	1/5½
Altrincham	1/10½	1/5½	Crewe	1/10	1/5½	Lancaster	1/10½	1/5½	Shoreham	1/9½	1/5
Amble	1/10	1/5½	Cromer	1/7½	1/3½	Leamington	1/10½	1/5½	Shrewsbury	1/10	1/5½
Amersham	1/9	1/4½	Crowborough	1/8½	1/4½	Leatherhead	1/9½	1/5	Sittingbourne	1/8½	1/4½
Ammanford	1/10½	1/5½	Cuckfield	1/8½	1/4½	Leeds	1/10½	1/5½	Skegness	1/9½	1/5
Andover	1/8½	1/4½	Darlington	1/10½	1/5½	Leicester	1/10½	1/5½	Sleaford	1/9	1/4½
Ardingly	1/8½	1/4½	Darwen	1/10½	1/5½	Leighton Buzzard	1/7½	1/3½	Slough	1/9½	1/5
Arundel	1/8½	1/4½	Daventry	1/9	1/4½	Letchworth	1/9½	1/5	Southampton	1/10	1/5½
Ascot	1/8½	1/4½	Deal	1/8½	1/4½	Lewes	1/8½	1/4½	Southend-on-Sea	1/10	1/5½
Ashby-de-la-Zouch	1/10½	1/5½	Denbigh	1/9½	1/5	Lichfield	1/9½	1/5	Southport	1/10½	1/5½
Ashford (Kent)	1/8½	1/4½	Derby	1/10½	1/5½	Lincoln	1/10½	1/5½	South Shields	1/10½	1/5½
Ashford (Middlesex)	1/10½	1/5½	Devizes	1/7½	1/3½	Littlehampton	1/8½	1/4½	Spalding	1/8½	1/4½
Ashington	1/10	1/5½	Dewsbury	1/10½	1/5½	Liverpool	‡$2/0½	¶	Stafford	1/10	1/5½
Ashtead	1/10½	1/5½	Didcot	1/8½	1/4½	Llandudno	1/9½	1/5	Staines	1/9½	1/5
Ashton-under-Lyne	1/10½	1/5½	Diss	1/7	1/3	Llanelly	1/10½	1/5½	Stamford	1/9½	1/5
Aylesbury	1/8½	1/4½	Doncaster	1/10½	1/5½	London—			Stevenage	1/9½	1/5
Aylsham	1/7½	1/3½	Dorchester	1/8	1/3½	12m. radius	*2/0	1/6½	Stockport	1/10½	1/5½
Bagshot	1/8½	1/4½	Dorking	1/9	1/4½	12-15m. radius	*1/11½	1/6½	Stockton-on-Tees	1/10½	1/5½
Banbury	1/8½	1/4½	Dover	1/8½	1/4½	Long Eaton	1/10½	1/5½	Stoke-on-Trent	1/10½	1/5½
Barnsley	1/10½	1/5½	Dovercourt	1/8½	1/4½	Longton	1/10½	1/5½	Stourbridge	1/10½	1/5½
Barnstaple	1/8½	1/4½	Driffield	1/9	1/4½	Loughborough	1/10½	1/5½	Stourport	1/10	1/5½
Barrow-in-Furness	1/10½	1/5½	Droitwich	1/10	1/5½	Louth	1/9	1/4½	Stowmarket	1/7½	1/3½
Barry	1/10½	1/5½	Dudley	1/10½	1/5½	Lowestoft	1/8½	1/4½	Stratford-on-Avon	1/9½	1/5
Basingstoke	1/8½	1/4½	Dunstable	1/9	1/4½	Luton	1/10	1/5½	Stroud	1/9½	1/5
Bath	1/10	1/5½	Durham City	1/10½	1/5½	Macclesfield	1/10	1/5½	Sunderland	1/10½	1/5½
Batley	1/10½	1/5½	Eastbourne	1/9½	1/5	Maidenhead	1/9½	1/5	Sutton Coldfield	1/10½	1/5½
Beaconsfield	1/9	1/4½	E. Glam. (Mon. Val.)	1/10½	1/5½	Maidstone	1/9	1/4½	Swaffham	1/7	1/3
Beccles	1/7	1/3	East Grinstead	1/8½	1/4½	Malvern	1/9	1/4½	Swanage	1/8½	1/4½
Bedford	1/10	1/5½	Edenbridge	1/8½	1/4½	Manchester	1/10½	1/5½	Swansea	1/10½	1/5½
Berkhamsted	1/8½	1/4½	Ely	1/7½	1/3½	Manningtree	1/7½	1/3½	Swindon	1/9	1/4½
Berwick	1/10	1/5½	Epping	1/10½	1/5½	Mansfield	1/10½	1/5½	Tamworth	1/10	1/5½
Beverley	1/10½	1/5½	Exeter	1/10	1/5½	March	1/7½	1/3½	Taunton	1/9	1/4½
Bexhill-on-Sea	1/9	1/4½	Exmouth	1/9	1/4½	Margate	1/8½	1/4½	Tenterden	1/8½	1/4½
Bideford	1/8½	1/4½	Fakenham	1/7½	1/3½	Market Harborough	1/9½	1/5	Thames Haven	1/10½	1/5½
Biggleswade	1/8½	1/4½	Falmouth	1/9	1/4½	Matlock	1/9	1/4½	Thetford	1/8	1/3½
Billericay	1/8	1/3½	Fareham	1/9½	1/5	Melton Constable	1/7	1/3	Thorpe Bay	1/10	1/5½
Birchington	1/8½	1/4½	Faversham	1/8½	1/4½	Melton Mowbray	1/9½	1/5	Todmorden	1/10½	1/5½
Birkenhead	‡$2/0½	¶	Felixstowe	1/9½	1/5	Merthyr	1/10½	1/5½	Tonbridge	1/9	1/4½
Birmingham	†1/10½	1/5½	Filey	1/9	1/4½	Middlesbrough	1/10½	1/5½	Torquay	1/10	1/5½
Bishop Auckland	1/10½	1/5½	Fleetwood	1/10½	1/5½	Middleton	1/10½	1/5½	Totnes	1/8½	1/4½
Bishop's Stortford	1/9½	1/5	Flint	1/10½	1/5½	Middlewich	1/10	1/5½	Trowbridge	1/7½	1/3½
Blackburn	1/10½	1/5½	Folkestone	1/8½	1/4½	Milford Haven	1/9	1/4½	Truro	1/8	1/3½
Blackpool	1/10½	1/5½	Frinton-on-Sea	1/8½	1/4½	Morecambe	1/10½	1/5½	Tunbridge Wells	1/9	1/4½
Blyth	1/10½	1/5½	Frome	1/7½	1/3½	Morley	1/10½	1/5½	Uppingham	1/9	1/4½
Bognor Regis	1/8½	1/4½	Gainsborough	1/9½	1/5	Mundesley	1/7½	1/3½	Uttoxeter	1/9	1/4½
Bolton	1/10½	1/5½	Gateshead	1/10½	1/5½	Nantwich	1/10	1/5½	Wakefield	1/10½	1/5½
Bournemouth	1/9½	1/5	Gillingham (Kent)	1/9½	1/5	Nelson	1/10½	1/5½	Walsall	1/10½	1/5½
Bracknell	1/8½	1/4½	Glossop	1/10½	1/5½	Newark-on-Trent	1/10	1/5½	Walsden	1/10½	1/5½
Bradford	1/10½	1/5½	Gloucester	1/10	1/5½	Newbury	1/8½	1/4½	Walton-on-Naze	1/8½	1/4½
Bradford-on-Avon	1/7½	1/3½	Godalming	1/8½	1/4½	Newcastle-on-Tyne	1/10½	1/5½	Ware	1/10	1/5½
Braintree	1/8½	1/4½	Goole	1/10½	1/5½	Newcastle-u.-Lyme	1/10½	1/5½	Warminster	1/7½	1/3½
Brentwood	1/10	1/5½	Gosport	1/10	1/5½	New Forest	1/8½	1/4½	Warrington	1/10½	1/5½
Bridgwater	1/9	1/4½	Grantham	1/9½	1/5	Newmarket	1/8½	1/4½	Warwick	1/10½	1/5½
Bridlington	1/10	1/5½	Gravesend	1/10	1/5½	Newport, Mon.	1/10½	1/5½	Wellington R.D.	1/10	1/5½
Brighouse	1/10½	1/5½	Great Yarmouth	1/8½	1/4½	Newport Pagnell	1/8½	1/4½	Welwyn	1/9½	1/5
Brighton	1/9½	1/5	Grimsby	1/10½	1/5½	Northampton	1/10½	1/5½	Welwyn Gar. City	1/10½	1/5½
Bristol	1/10½	1/5½	Guildford	1/8½	1/4½	Norwich	1/10½	1/5½	Wells (Norfolk)	1/7	1/3
Broadstairs	1/8½	1/4½	Guilsborough	1/9	1/4½	Nottingham	1/10½	1/5½	West Bromwich	1/10½	1/5½
Bromsgrove	1/10	1/5½	Halifax	1/10½	1/5½	Nuneaton	1/10½	1/5½	Westcliff-on-Sea	1/10	1/5½
Buckley	1/10½	1/5½	Hanley	1/10½	1/5½	Oakham	1/9	1/4½	Weston-super-Mare	1/9½	1/5
Bungay	1/6½	1/2½	Harpenden	1/9½	1/5	Oldham	1/10½	1/5½	Weybridge	1/9½	1/5
Burnham-on-Crouch	1/7	1/3	Harrogate	1/10½	1/5½	Ormskirk	1/10½	1/5½	Weymouth	1/8½	1/4½
Burnley	1/10½	1/5½	Hartlepools	1/10½	1/5½	Oxford	1/10	1/5½	Whitby	1/9½	1/5
Burslem	1/10½	1/5½	Harwich	1/8½	1/4½	Oxted	1/9	1/4½	Whitstable	1/8½	1/4½
Burton-on-Trent	1/10½	1/5½	Haslemere	1/8½	1/4½	Paignton	1/10	1/5½	Widnes	1/10½	1/5½
Bury	1/10½	1/5½	Hastings	1/8½	1/4½	Peterborough	1/10	¶ 1/5½	Wigan	1/10½	1/5½
Bury St. Edmunds	1/8	1/3½	Hatfield	1/10	1/5½	Plymouth	1/10½	1/5½	Wigton	1/9	1/4½
Buxton	1/10	1/5½	Haywards Heath	1/8½	1/4½	Pontefract	1/10½	1/5½	Willington	1/10½	1/5½
Byfleet	1/9	1/4½	Hednesford	1/10	1/5½	Pontypridd	1/10½	1/5½	Wilmslow	1/10½	1/5½
Cambridge	1/10½	1/5½	Hemel Hempstead	1/9½	1/5	Port Talbot	1/10½	1/5½	Winchester	1/9	1/4½
Canterbury	1/8½	1/4½	Henley-on-Thames	1/8½	1/4½	Portsmouth	1/10	1/5½	Windermere	1/9	1/4½
Cardiff	1/10½	1/5½	Hereford	1/8½	1/4½	Preston	1/10½	1/5½	Windsor	1/9½	1/5
Carlisle	1/10½	1/5½	Herne Bay	1/8½	1/4½	Pulborough	1/8½	1/4½	Wisbech	1/8	1/3½
Carnforth	1/10½	1/5½	Hertford	1/10	1/5½	Ramsgate	1/8½	1/4½	Witham	1/8½	1/4½
Castleford	1/10½	1/5½	Heysham	1/10½	1/5½	Reading	1/10	1/5½	Woking	1/9	1/4½
Caterham	1/10½	1/5½	Hitchin	1/9½	1/5	Redditch	1/10	1/5½	Wokingham	1/8½	1/4½
Chard	1/7½	1/3½	Hoddesdon	1/10	1/5½	Redhill	1/9	1/4½	Wolverhampton	1/10½	1/5½
Chatham	1/9½	1/5	Holt (Norfolk)	1/7	1/3	Ripon	1/9	1/4½	Woodbridge	1/8	1/3½
Chelmsford	1/10	1/5½	Horley	1/8½	1/4½	Rochdale	1/10½	1/5½	Worcester	1/10	1/5½
Cheltenham	1/9½	1/5	Horsham	1/8½	1/4½	Rochester	1/9½	1/5	Workington	1/9	1/4½
Chepstow	1/10	1/5½	Horwich	1/10½	1/5½	Rugby	1/10½	1/5½	Worksop	1/10	1/5½
Chertsey	1/9½	1/5	Huddersfield	1/10½	1/5½	St. Albans	1/10	1/5½	Worthing	1/8½	1/4½
Chester	1/10½	1/5½	Hull	1/10½	1/5½	St. Helens	1/10½	1/5½	Wrexham	1/10	1/5½
Chesterfield	1/10½	1/5½	Hunstanton	1/7½	1/3½	St. Neots	1/8	1/3½	Wroxham	1/8	1/3½
Chichester	1/8½	1/4½	Huntingdon	1/8	1/3½	Saffron Walden	1/7½	1/3½	Wycombe	1/9½	1/5
Chorley	1/10½	1/5½	Ilfracombe	1/8½	1/4	Salisbury City	1/8	1/3½	Wymondham	1/7½	1/3½
Cirencester	1/8	1/3½	Ingatestone	1/9	1/4½	Salisbury Plain	1/9½	1/5	Yeovil	1/9	1/4½
Clacton	1/8½	1/4½	Ipswich	1/10	1/5½	Sawbridgeworth	1/9	1/4½	York	1/10½	1/5½
Cleveleys	1/10½	1/5½									

* Painters 1d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 2/1.

¶ Tradesman's Labourers, 1/6½. Navvies and General Labourers, 1/6½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

NOTE.—Carpenters and Joiners in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.

For Building Trade Wages in Scotland, see page 72.

PRICES CURRENT OF MATERIALS*

Note: Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery. At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

BRICKS, &c.

The price for Stock Bricks has been altered to minimum price at works for full lorry loads. Sittingbourne district. A quotation for cartage should be obtained as the haulage question is difficult.

		£ s. d.
First Hard Stocks	per 1,000	4 5 6
Second Hard Stocks	„	3 18 6
Mild Stocks	„	3 5 6
Single Rough Stocks	„	2 19 6
Third Common Stocks	„	2 10 0

2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	King's Cross Station per 1,000 s. d.	To sites in W.C. District per 1,000 s. d.
Pressed	51 9	58 3
Keyed	53 9	60 3
Single Bullnose	71 9	78 3
Rustics	71 9	78 3
Whites	72 3	78 3

White Midhurst Best selected (delivered London site) £ 5 10 0

Best blue Pressed Staffs. (London Stns.) 10 2 0

Do. Bullnose (London Stns.) 10 12 0

Blue Wire Cuts (London Stns.) 8 19 6

Best Stourbridge Fire Brick (London Stns.):—

£ s. d.		£ s. d.
2½ in. 10 0 0	3 in.	12 0 0

GLAZED BRICKS. (London Stns.)

Best White Ivory and Salt Glazed Stretcher	28 0 0	D'ble Str'tch'rs D'ble Headers	36 10 0 33 10 0
Headers	27 10 0	One side&two ends	37 10 0
		Two sides&one end	38 10 0
Quoins, Bullnose and 4½ in. Flats	34 10 0	Splays and Squints	36 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

	s. d.		s. d.
2" per yd. sup.	2 3	3" per yd. sup.	2 9
2½ „ „	2 6	4" „ „	3 1

CLINKER CONCRETE.

2" per yd. sup.	1 9	3" per yd. sup.	2 6
2½ „ „	2 1	4" „ „	3 4

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 6
Size 12 x 9 x 2½ „	2 9
Size 12 x 9 x 3" „	3 3
Size 12 x 9 x 4" „	3 7

Plus 2d. for smooth one side, and 4d. for smooth both sides.

Delivered: Free on site London area.

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" x 4"	3 9

Per yard super d/d. Free on site, London.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube s. d. 3 3½

BEER STONE—RANDOM BLOCK—

Free on rail at Seaton Station.. per ft cube 2 3

Delivered free on rail Nine Elms, S.R. „ 3 1½

Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 7

Do. do. delivered on road waggons as above stations per ft. cube 4 7

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.

HOPTON-WOOD STONE—

F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P.ft.cb. 13 2

Sawn two sides 26 11

Sawn three or four sides 31 11

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super) per ft. super 5 6

6 in. rubbed two sides, ditto „ 6 3

3 in. sawn two sides slabs (random sizes) „ 2 7

2 in. to 2½ in. sawn one side slabs (random sizes) (paving) „ 1 8½

1½ in. to 2 in. ditto „ 1 4½

HARD YORK—

Delivered at any Goods Station, London.

Scrappled random blocks per ft. cube 6 10

6 in. sawn two sides landings to sizes (under 40 ft. super) per ft. super 5 7½

6 in. rubbed two sides, ditto „ 6 9

4 in. sawn two sides slabs (random sizes) „ 3 5

3 in. ditto ditto „ 2 8

2 in. self-faced random flags per yd. super 8 9

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Small section cills and copings, 11s.

SAND.

Thames Ballast	9s. 6d. per yd.	delivered 2 miles radius Paddington.
Pit Ballast	9s. 0d. „ „	
Pit Sand	11s. 6d. „ „	
Washed Sand	13s. 0d. „ „	
¼ in. Shingle	10s. 0d. „ „	
¼ in. Broken Brick	15s. 6d. „ „	
Pan Breeze	9s. 6d. „ „	

CEMENT.

Best British Portland Cement. Standard Specification. delivered London Area. £ s. d.

6 ton loads and upwards site per ton 2 9 6

1 ton to 6 tons site 2 12 6

Alongside Vauxhall in 80 ton lots 2 7 0

"Ferrocrete" Rapid Hardening Cement—

6 ton loads and upwards site 2 15 6

1 ton to 6 tons site 2 18 6

Alongside Vauxhall in 80 ton lots 2 13 0

Stored in Reserved Bins at works. 1s. 6d. per ton extra.

"Aquacrete" Water Repellent, "Blue Circle" cement, 30s. per ton extra on ordinary "Blue Circle" prices.

"Colorcrete" Nos. 1 and 2. Coloured Rapid Hardening Portland Cement, in 6-ton lots .. 3 19 6

"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.

"Snowcrete" White Portland Cement 10 5 0

"417" Cement (Ultra Rapid Hardening) Delivered site London Area in 6 ton lots and upwards per ton 3 9 6

Plus packages at current prices.

Super Cement (Waterproof), *bags extra* 3 19 6

NOTE.—Paper bags will be charged at the rate of 7s. nett per ton. Jute sacks charged 1s. 9d. nett each and 1s. 6d. nett each allowed if returned to works within two weeks, in good condition.

Carriage will be paid by makers on returned empty jute sacks.

£ s. d.		£ s. d.
Roman cement 8 10 0	Keene's Cement, White	7 0 0
Parian Cement 7 0 0	„ „ Pink	6 10 0

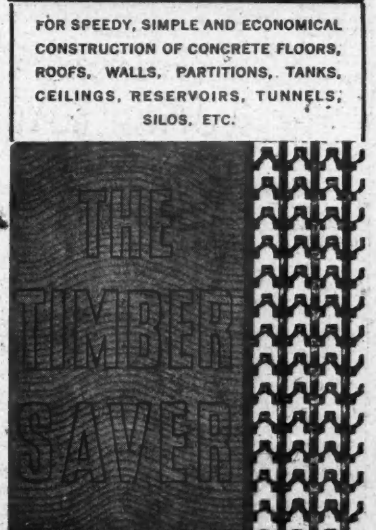
Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

£ s. d.		£ s. d.		£ s. d.
24 by 12	45 5 0	18 by 10	24 0 0	
22 by 12	37 17 6	18 by 9	22 12 6	
22 by 11	34 2 6	16 by 10	21 10 0	
20 by 12	33 0 0	16 by 8	16 12 6	
20 by 10	30 5 0			

FOR SPEEDY, SIMPLE AND ECONOMICAL CONSTRUCTION OF CONCRETE FLOORS, ROOFS, WALLS, PARTITIONS, TANKS, CEILINGS, RESERVOIRS, TUNNELS, SILOS, ETC.



HY-RIB SALES
6 COLLINGHAM GARDENS · EARLS COURT · LONDON · S.W.5
Telephone: FROBISHER 8141

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 0 0	Sirapite, Coarse	4 3 6
„ White	4 7 6	„ Finish	4 13 6
Pioneer	4 5 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue Lias Lime	3 7 6	Grey Stone Lime Chalk Lime	2 17 6 2 17 6
Granite Chippings	1 15 0	Hair per cwt.	3 5 0

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in paper bags, £2 12s. 6d. in 6-ton lots at railway depot.

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons Per 1,000 f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district		£5 6 6
Ditto hand-made ditto		6 7 6
Ornamental ditto		6 14 0
Hip and valley tiles (per dozen)	Hand-made	0 12 9
	Machine-made	0 12 3

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	Foot cube. £ s. d.
Dry English Wainscot Billets	0 18 0 to 0 18 0
Dry Slavonian Billet Wainscot	17 0 to 1 0 0
Dry Cuba Mahogany logs	21 0 to 1 4 0
Square-edged Honduras Mahogany	0 16 6
Log Cut Honduras Mahogany	0 17 6
American Figured Oak	0 13 0
American Plain Oak	0 12 6
Jap. Figured Oak	0 13 0
Jap. Plain Oak	0 12 6
Teak	0 15 6
American Whitewood	0 12 0
African Whitewood	0 8 0
African Mahogany	0 14 0
Australian Walnut	0 19 0
Australian Silky Oak	0 12 6
Best Scotch glue per cwt.	5 0 0
Liquid glue per gallon	1 2 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes, 2 in. by 3 in. to 4 in. by 11 in.	43 10 0	53 0 0

PLANED BOARDS.

PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1 in. by 11 in. } 1 in. by 9 in. }	67 10 0

	Per square. s. d.
1 in. plain edge flooring	53 0
1¼ in. ditto	66 6
1 in. tongued and grooved	53 0
1¼ in. ditto	66 6

MATCHING.

	Per square. s. d.
⅜ in.	37 6
½ in.	42 0
1 in.	55 0

PLUMBERS' BRASS WORK.

Delivered in London.

To pass Met. Water Board.

CRUTCH HEAD S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in. ¾ in.

37/- 58/6 per doz.

CHROMIUM PLATED TOILET S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in. ¾ in.

52/3 72/- per doz.

S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/-	59/-	97/-	228/-	324/-	540/- per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
53/-	84/-	136/-	252/-	405/-	664/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
9/11	11/-	17/6	29/3	49/6	71/- per doz.

HEAVY CROYDON BALL VALVES. SCREW IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
45/-	73/-	120/-	210/-	297/- per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
11/9	14/5	21/6	37/9	54/-	59/6 per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/9	13/6	25/-	37/-	46/- per doz.

LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1¼ in.	1½ in.	2 in.	3 in.
8 lb. Lead P.	26/-	34/8	48/3	84/- per doz.
8 lb. Lead S.	32/6	41/6	60/-	108/- „

SOLDER.—Plumbers, 1/5. Tinmen's, 1/8. Blow pipe, 1/10 per lb.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(contd.)

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£23 10 0
Plain Compound Girders	26 0 0
Stanchions	28 10 0
In Roof Work	33 10 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	23 0 0	⅜ in. to ½ in.	21 10 0
⅝ in.	22 0 0	⅝ in. to 2½ in.	21 0 0

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½ % gross.

	Tubes. ½"/6"	Tubulars. ½"/6"	10/17 19/24	Flanges. ½"/2"	2½"/6"
	%	%	%	%	%
Light weight	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv.lightweight	40½	—	38½	39½	48½
Galv.heavyweight	31	31	31	29½	41

Tubes and tubulars sizes ⅛"/⅜" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works. per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	1/5½	1/2½	4½d.
3½ in.	1/7	1/4	4½d.
4 in.	1/7	1/6	6½d.
4½ in.	1/8½	1/8½	7½d.
5 in.	2/0½	2/0	9d.

O.C. GUTTERS.

3 in.	1/10½	1/7½	5d.
3½ in.	2/1½	1/7½	6½d.
4 in.	2/1½	1/8½	7½d.
4½ in.	2/2½	1/11½	8½d.
5 in.	2/8½	2/3	10½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe	Bends. Stock angles.	Branches.
2 in.	2/2½	1/5½	2/2
2½ in.	2/3½	1/8½	2/7½
3 in.	2/8½	2/1½	3/2
3½ in.	3/2½	2/6½	3/7½
4 in.	3/8½	3/0½	4/5

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	3/9½	2/7½	3/2
2½ in.	4/5	2/10½	3/11½
3 in.	4/9	3/2	4/8½
3½ in.	4/10½	3/11½	5/5½
4 in.	5/3½	4/5	6/3½

L.C.C. COATED DRAIN PIPE.

	Pipe.	Bends.	Branches.
3 in. per yd. in 9 fts.	5/5	6/3	9/11
cwt. qr. lbs.			
4 in. 1 1 20	7/11	7/1	12/6
5 in. 1 2 22	9/7	12/9	19/3
6 in. 2 0 6	11/5	14/8	25/6

Gaskin, 75/- per cwt.

	Per ton basis in London. £ s. d.
IRON.—Staffordshire Crown, Merchant quality	18 7 6
IRON.—Staffordshire Marked Bars	19 7 6
Mild Steel Bars	19 15 0
Mild Steel Hoops	21 10 0
	Ex Merchant's Stock, per ton (two-ton lots).
Soft Steel Sheets, C.R. and C.A.—	
20 gauge	24 17 6
24 gauge	25 2 6
26 gauge	25 17 6
Galvanised Corrugated Sheets, 6 ft. to 9 ft.	
20 gauge	27 0 0
24 gauge	27 10 0
26 gauge	28 15 0
Galvanised Flat Sheets, C.R. and C.A.—	
20 gauge	28 10 0
24 gauge	29 0 0
26 gauge	30 5 0
	Per ton. £ s. d.
Cut Nails, 3 in. and up	28 10 0

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

PAINTS, &c.

	£ s. d.
Raw Linseed Oil (5 galls.) .. per gallon	0 5 5
Boiled Linseed Oil (5 galls.) .. "	0 5 8
Turpentine (5 galls.) .. .. "	0 8 9
Genuine Ground English White Lead, per cwt.	3 8 3
Genuine White Lead Paint, 14 lb. tins free, per cwt.	4 11 0
Genuine Red Lead. .. "	2 14 0
Linseed Oil Putty .. "	1 1 3
Size. XD quality .. f/kn.	0 4 3

Turpentine substitute can be obtained and prices vary according to quality from 3/3 gallon upwards.

	£ s. d.
SNOWCEM CEMENT PAINT .. per cwt.	2 16 0
C.M.C. CAMOUFLAGE PAINT .. "	2 16 0

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 16 0
Fine do.	"	0 18 0
Fine Copal	"	1 0 0
Pale Copal	"	1 2 0
Pale Opal Carriage	"	1 6 0
Best do. do.	"	1 14 0
Floor Varnish	Inside	1 0 0
Fine Pale Paper	"	1 0 0
Fine Copal Cabinet	"	1 4 0
Fine Copal Flatting	"	1 2 0
Hard Drying Oak	"	1 0 0
Fine Hard Drying Oak	"	1 1 6
Fine Copal Varnish	"	1 2 6
Pale do.	"	1 14 0
Best do.	"	1 4 6
Best Japan Gold Size	"	1 14 6
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 14 0
Brunswick Black		0 9 6
Berlin Black		0 16 0
Knotting (patent)		0 17 0
French and Brush Polish		0 14 0
Liquid Dryers in Terebene		0 11 0
Cuirass Black Enamel		0 9 0

LEAD, &c.

(Delivered in London.)	Per ton. £ s. d.
LEAD.—Sheet, English, 4 lb. and up	35 10 0
Pipe in coils	35 0 0
Soil pipe	40 10 0
Compo pipe	42 5 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton } £18 0 0.

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY (O.Q.) AND SELECTED GLAZING QUALITY (S.Q.). PER FOOT SUPER.

In sizes not exceeding 80 in. long or 48 in. wide or 110 united inches.

	O.Q.	S.Q.
18 oz. in 300 ft. cases	2½d.	2¾d.
24 oz. " 200 ft. "	3½d.	4d.
26 oz. " 200 ft. "	3¾d.	4¼d.
32 oz. " 200 ft. "	5¼d.	6¼d.
24 oz. " 300 ft. "	3¼d.	3¾d.
26 oz. " 300 ft. "	3¾d.	4¼d.
32 oz. " 300 ft. "	5¼d.	6¼d.
24 oz. Obscured Sheet		6¼d.
Fluted, 21 oz.		9d.
Enamelled, 18 oz.		5¼d.
" 24 oz.		6¼d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.	Per ft. s. d.
Rolled plate, ¼ in.	5½d.
Rough cast double rolled, ⅛ in.	6½d.
Rough cast double rolled, ¼ in.	6½d.
Figured rolled, and Cathedral, white	6½d.
Figured rolled and Cathedral, tinted	9½d.
Rolled Sheet	6d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ⅛ in. thick	0 10½
Rolled plate is the same price as rough cast double rolled.	
	s. d.
Wire Rolled, ¼ in. thick	0 9½
Wired Cast, ¼ in. thick	0 9½
Georgian Wired Cast	0 10
"Calorex" Sheet, 21 oz.	2 6
" " 32 oz.	4 0
" Cast, ¼ in. thick	0 10
" " ⅜ in. thick	1 0
" " ½ in. thick	1 2
Non Actinic Glass, ¼ in. thick	0 9½
" " " ⅜ in. thick	1 0
" " " ½ in. thick	1 2

"VITA" GLASS.

	Per ft. s. d.
"Vita" Plate Glass, about ⅛ in. thick	
To 7 ft. super	5 0
Over 7 ft. super	7 6
"Vita" Sheet Glass, about 18/20 oz.	2 0
Cathedral "Vita" Glass :	
¼ in. thickness	2 0
⅜ in. "	3 0
½ in. Georgian Wired "Vita" Glass	3 6

GLASS BRICKS.

	s. d.
P.B. 1—8 in. × 4½ in. × 3½ in.	2 3 each nett
P.B. 2—5½ in. × 5½ in. × 3½ in.	2 0 "
P.B. 3—7½ in. × 7½ in. × 3½ in.	3 0 "
P.B.32—7½ in. × 7½ in. × 3½ in.	3 0 "
Radiused Corner Bricks to match up with—	
P.B. 2	3 9 each nett
P.B. 3	5 0 "
P.B.32	5 0 "

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from October 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A1	A2	A3	B	B1
Craftsmen	1/1½	1/11	1/10½	1/10	1/9½	1/9
Labourers	1/6	1/5½	1/5½	1/5	1/4½	1/4½

Aberdeen	A	Dumfriesshire	A2	Inverness	*	Perthshire	A2
Ayrshire	A	Dundee	A	Inverurie	A1	Peterhead	A1
Banff	B	Dunoon	A	Kincardineshire	A2	Renfrewshire	A
Berwickshire	A2	East Fife	A	Kinross-shire	A	Rothesay	A
Bridge of Allan	A	East Lothian	A	Lanarkshire	A	Roxburghshire	A2
Broughty Ferry	A	Edinburgh	A	Midlothian	A	St. Andrews	A
Clackmannanshire	A	Fifeshire	A	Monifieth	A	Selkirkshire	A2
Doune	A	Forfarshire	A2	Moray and Nairn	B	Stewartry	A2
Dunblane	A	Glasgow	A	Newport	A	Stirlingshire	A
Dumbartonshire	A	Greenock	A	Peeblesshire	A2	Stornoway	A2
Dumfries	A1	Hamilton	A	Perth	A	Tayport	A
						West Lothian	A

*This town has its own rates : Masons, 1/8½ ; Carpenters, 1/8½ ; Slaters, 1/8½ ; Plumbers, 1/9 ; Plasterers, 1/9½ ; but 1/10 is paid owing to the scarcity at present ; Painters, 1/8½ and Labourers, 1/4

The information given in this table is copyright. Rates of wages in England and Wales are given on page 74.

THE SCOTTISH BUILDER

NEW BUILDINGS

DUMBARTONSHIRE. — ALTERATIONS.— Alterations and extensions to offices, the architect being J. O. W. Grattan, 1, Eglinton-ter., Edinburgh.

GLASGOW. — BUILDING. — Alterations and additions for Cardowan Creameries, Ltd., 49-51, Holywell-st., to be carried out, the architect being Thomas S. Cordiner, 261, West George-st., Blythswood, Glasgow.—Plans in hands of James Aitchieson & Son, 170, Hope-st., Glasgow, for new drying kilns and lavatories.

Allocation of Scottish Contracts.

Mr. J. J. Davidson, M.P., who has on several occasions referred in the House of Commons to Messrs. George Wimpey and Co., Ltd., and the amount of Government work carried on by that firm, has received (according to a report in the *Sunday Dispatch*) a letter from the Financial Secretary to the Treasury (Captain Crookshank) stating that the Treasury and other Departments concerned are willing to institute an inquiry into the matter provided that *prima facie* evidence of any alleged irregularities on the part of the firm or the Government Departments concerned is forthcoming. Mr. Davidson has replied to Captain Crookshank saying that he is willing to supply all the information in his possession to the inquiry.

Salvage of Old Cement Bags.

All users of cement are specially requested by the Salvage and Recovery Board to save all empty cement bags. They should be kept—dry, if possible—separate from other materials released from salvage. The difficulty of obtaining sufficient bags is causing the Cement Makers' Federation concern, as approximately half of the old bags are lost, and it is pointed out that this may cause a serious hold-up on important work.

Agents of the C.M.F. are situated in most districts throughout the country, and will receive and pay for bags returned as salvage. If the local agent's address is not known, the Cement Makers' Federation, 52, Grosvenor-gardens, S.W.1, will help.

CURRENT AND PROPOSED NEW BUILDINGS

Brighouse.—T.C. seeking sanction for erection of pre-fabricated building for day nursery.—A. H. Marks & Co., Ltd., to erect works.

Bromsgrove.—R.D.C. to construct 4-in. and 6-in stoneware pipe sewer and connect existing drains from 28 properties. Plans by S. A. Price, Building S.

Chester. — T.C. approved scheme for alterations and extensions to plant, etc., at switching station. Plans by S. E. Britton, City Electrical E.

Coventry.—T.C. approved: Offices for Economic Transport, Ltd.; store-room for Banks & James, Ltd.; three temporary classroom blocks for Governors of King Henry VIII School; workshop for F. G. Plumb & Sons, Ltd.; temporary repairs to premises for F. W. Woolworth & Co., Ltd.; offices for J. Roach.

Coventry. — E.C. proposes nursery classes at schools.

Crowland.—Ministry of Agriculture propose hostels.

Deeping St. Nicholas.—Ministry of Agriculture to erect hostel.

Gateshead. — Scheme approved for central transport depot, for T.C., at £1,126. Plans by F. H. Patterson, B.E.—Dixon Corbett, Ltd., to erect lavatory block at works.

Gosberton.—Ministry of Agriculture to erect two hostels.

Haydock. — U.D.C. propose improvements to sewerage at park, at £450.

Hereford.—T.C. approved: Alterations "Three Crowns" hotel, Nicholson and Scriven, architects, Cathedral-chbrs., King-st.

Hinckley.—U.D.C. approved: Additions for L. Goadby.

Jarrow. — E.C. to erect pre-fabricated huts for school accommodation, at £600. Plans by J. S. Weir, B.E.

Kettering.—T.C. to erect pre-fabricated building.

Leicester.—E.C. propose extensions to Northfield Lodge school for school clinic, at £640. Plans by J. L. Beckett, City E.

Lewisham.—T.C. submitted schemes to M.H. for three war-time nurseries.

Loughborough.—E.C. to erect pre-fabricated building for day nursery. Plans by W. Granger, B.S.

Manchester. — T.C. propose repairs to Mayfield public washhouse.

Mossley.—T.C. propose day nursery.

Newcastle-on-Tyne.—City Council to set up clinic at Church-st., at £700. Plans by R. G. Roberts, 18, Cloth Market, City Architect.—Plans to be prepared by J. F. C. Solomon, City Estate and Property S., for alterations to premises at Penrith (Cumberland) to accommodate inmates from Elswick Grange Institution.

North Shields.—J. R. Wallace, 20, Northumberland-sq., North Shields, is architect for livery stables for E. Turnbull. G. H. Gray, 50, Camden-st., North Shields, is architect for restoration of Barclays Bank.

Northumberland. — Cackett, Burns Dick & McKellar, Ellison-pl., Newcastle, on-Tyne, are architects for hostel at Cramlington.

Rochdale.—T.C. propose taking up tram rails and reinstating carriageway of Manchester-rd.

Salford.—T.C. to erect pre-fabricated building for day nursery.—T.C. to adapt hospital and open-air school or day nursery. Plans by W. A. Walker, City E.

Spalding. — Ministry of Agriculture to erect a hostel at Surfleet.

Stretford. — T.C. approved: Joinery works for Craigielea Joinery Co., Ltd.

Warrington. — Gas Committee to erect sanitary block at Longford. Plans by J. Y. Hughes, B.S.

West Lancashire. — R.D.C. to erect pumping station. Plans by R. Rosbotham, E. and S.

Winsford.—U.D.C. to acquire Greville lodge for adaptation for National Fire Service.

BRITISH RESTAURANTS AND CANTEENS

Brandon.—M. of F. approved plan for B.R. at Esh Winning, at £692. Plans by F. Hedley, architect.

Cambuslang.—Plans prepared for B.R., the architect being William Watt, Albert-st., Motherwell.

Chester. — T.C. propose adaptation of additional buildings for B.R., at £3,000. Plans by C. Greenwood, City S.

Coventry.—T.C. approved: Canteen for Coventry Radiator and Presswork, Ltd.; canteen for Rubery Owen and Co., Ltd.

Darlington.—T.C. received sanction of M.F. for conversion of Corn Exchange into B.R. Plans by E. Minors, B.S.

Doncaster.—R.D.C. propose adaptation of Church hall, Rossington, for B.R. Plans by J. A. Williams, S.

Durham.—J. J. Eltringham, Derwent-st., Blackhill, Co. Durham, is architect for canteen at Derwent Colliery.

Glasgow.—Plans in the hands of Wylie, Shanks & Wylie, 204, West Regent-st., Blythswood, Glasgow, for canteen for Fleming Bros.

Hull.—T.C. propose installing electrical equipment in existing B.R., at £270. —T.C. to erect additional B.R. and ambulance station. A. Rankine (A.), City Architect, Guildhall.

Newcastle-on-Tyne.—City Council propose five more B.R. Plans by R. G. Roberts, 18, Cloth Market, Newcastle-on-Tyne, City Architect.

Newcastle-under-Lyme. — T.C. propose adaptation of Congregational schoolroom for B.R. and conversion of buildings at Wolstanton, for communal feeding centre. Plans by A. Cotton, B.S.

Northumberland. — E.C. to establish further school canteens at elementary and secondary schools, at £1,600, for equipment.—Cooking depots proposed at elementary schools, at £800, for equipment. Plans by W. W. Tasker, County Offices, Morpeth, County Architect.

Scarborough.—T.C. propose alterations to bakery for emergency meals, at £500. Plans by H. V. Overfield, B.E. and S.

Swinton and Pendlebury.—T.C. propose pre-fabricated building at Pendlebury, also adaptation of Market Hall, Swinton, for B.R. Plans by A. Cordwell, B.E.

Wisbech.—T.C. approved: Canteen and lavatories for Farmers' Marketing and Supply Co., Ltd.

York.—T.C. approved a supplementary estimate of £2,793 for E.C. for additional school canteens. Plans by C. J. Minter, City E.

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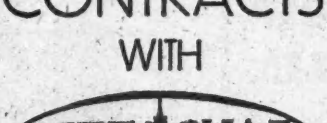

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TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.

Tenders for A.R.P. work will be found under "A.R.P. Schemes."

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government Departments.*

Bournemouth.—Nissen hut for use as cooking depot, for T.C.: *G. Shears & Sons, Ltd.

Bedford.—Emergency kitchens at police stations, for Standing Joint Emergency Committee. Sydney C. Jury, Shire Hall, Bedford, architect:—

Biggleswade: *G. Wrycroft & Sons, St. Neots £145
Dunstable: *Arthur Oakley, Luton 99
Kempston: *S. Foster, Ltd., Kempston... 136
Leighton Buzzard: *H. Lacy & Sons, Luton 150

Chorley.—Plastering work, concreting floors of two bathrooms and installing bath at institution, for Lancashire C.C. A. Evans, County Architect, County-bldgs., Preston: *Brown & Bennett, Southgate North-rd., Preston, £103.

Corby.—Additions to Rowlett schools, for C.C.: *A. Tailby & Sons, 29, Station-rd., Desborough, £547.

Durham.—Canteen at Shotton Colliery: *Jos. Huntley & Son, Ltd., Marion-st., Sunderland.

Erith.—Alterations to existing timber and corrugated-iron buildings as British Restaurants. J. H. Clayton, B.E. and S.:

D. G. Somerville & Co., Ltd., London £2,416
F. Horn, Sidcup... 1,847
P. J. Palmer, Welling 1,832
Martin & Saunders, Ltd., Heathfield 1,740
H. O. Wilson, Ltd., Woolwich 1,644
Harrison & Spooner, Ltd., London 1,620
Kent and Sussex Contractors, Ltd., Erith 1,611
W. J. Draper & Son, Dartford 1,554
H. T. Else & Sons, Beckenham 1,554
Boyd Gibbons, Forest Gate ... 1,534
Cox Bros., Maidstone 1,500
R. Hopkins & Sons, Gravesend 1,498
Geo. Stone, Erith 1,459
North Kent Construction Co. (Thames Steam Saw Mills), Erith 1,384
*John Harrison (London), Ltd., London 1,297

Glasgow.—Works for Corporation: painter work on Crail-st. clinic: *T. Hastie & Son, Glasgow, £161; heating work at hospital: *H. M. Anderson, Glasgow, £290.

Heckmondwike.—Repair of Greenside, for U.D.C.: *W. & J. Glossop, Ltd., £110.

Hereford.—Additions to works: *Bowers & Co., Bath-st., Hereford.

Lexden and Winstree. — Laying and jointing of approx. 1,100 yds. of 3 in. and 4 in. cast-iron water main, for R.D.C. A. Hurd, S., Rebow-chbrs., Sir Isaac's Walk, Colchester: *A. Brett, 42, Brackendale-av., Pitsea, Essex, £313.

¶London (Air Ministry).—Contracts placed to the value of £500 or over for week ended January 3:—

Electrical work: W. T. Henleys Telegraph Works Co., Ltd., Dorking; Standard Telephones and Cables, Ltd., London, E.16; Duncan Watson (Electrical Engrs.), Ltd., London, W.1; Callenders Cable and Construction Co., Ltd., Belvedere.

Civil engineering work : W. J. Simms, Sons & Cooke, Ltd., Nottingham; B. Sunley & Co., Ltd., London, W.1.

Building work : Haymills Contractors, Ltd., London, W.5; E. H. Burgess, Ltd., London, S.W.1.

Heating work : G. N. Haden & Sons, Ltd., London, W.C.1.

General maintenance work : P. Nimmo & Sons, Edinburgh, 9.

¶**London (War Dept.).**—Following are contracts placed by War Dept. at January 3 :—

Clackmannanshire : Miscellaneous works, Alex B. Cant, Limekilns, Fife.

Northumberland : Hutting (erection), R. C. Williamson, Strathmore-rd., Rowlands Gill, Co. Durham; M. J. Leddell & Son, "Campsie," West Croft-rd., Forest Hall, Newcastle-on-Tyne, 2.

Northumberland : Miscellaneous works, John H. Pierce, Chirnside, Duns, Berwick-on-Tweed.

Yorks : Miscellaneous work, Drake & Warters, Ltd., New Wells, Wakefield.

Yorks : Hutting (erection), J. T. Tarran & Sons, Ltd., Hutton Rudby, Yarm, Yorks.

Lancs : Miscellaneous work, Nicholson & Wright, Ltd., Cable-st., Lancaster; W. J. W. Cronshaw & Sons, Ltd., Pump-st., Blackburn.

Middx : Hutting (erection), Wm. Blood, Ltd., 43/5, Durham-st., London, S.E.1.

Surrey : Miscellaneous works, H. W. Fish, Ltd., 2, Wharf-st., Godalming, Surrey; Pook, Croucher & Offer, New Haw, Addlestone, Surrey; P. L. Clear & Son, 52-53, Dene-st., Dorking; Tarrant Builders, Ltd., Wentworth, Virginia Water, Surrey.

Sussex : Miscellaneous works, T. Couzens & Sons, Ltd., West Marden, nr. Chichester, Sussex; F. Milton & Sons, Ltd., Steam Joinery Works, Witley, Surrey; Frederick Hill, Ltd., North Gate, Chichester, Sussex; Z. Peshett & Sons, Ltd., Angmering, Littlehampton, Sussex; T. J. Braybon & Son, Ltd., 169, North-st., Brighton, Sussex; Eames & Calverley, Ltd., Ringmer, Sussex; F. W. Hill (Bognor Regis), Ltd., Spencer-st., Bognor Regis (2 contracts); J. Boxall, Tillington, nr. Petworth, Sussex.

Wilts : Hutting (erection), R. Moulding & Sons, South Newton, Salisbury.

Londonderry Area : Miscellaneous works, Jas. McBride, Duncreggan-rd., Londonderry.

Co. Down : Hutting (erection), I. Copeland & Sons, Lower Windsor-av., Belfast; R. Cullen & Sons, Church-st., Portadown, Co. Armagh; W. J. Jeffers, Castlereagh-rd., Belfast; J. & R. W. Taggart, Cliftonville-rd., Belfast; H. Laverty & Sons, Ltd., Cambridge-st., Belfast.

Middlesbrough.—Internal painting of Smeaton-st. St. Patrick's R.C. schools, for E.C. : *Fred Roe, Stockton-on-Tees, £475.

Newcastle-on-Tyne. — Conversion of stores into offices for central library, for City Council : *S. Fenwick & Co., Dunn-st., Newcastle-on-Tyne, £392.

Ormskirk.—(a)Painting and decorating parts of children's hospital, male and female hospitals and maternity section, and decorating house day rooms; (b) decorating male and female mental blocks at County hospital and institution, for Lancashire C.C. A. Evans, County Architect, County-bldgs., Preston : (a) *T. Ball, 58, Derby-st., £283; (b) *E. H. Bampton, Ltd., Black Moss-la., Aughton Park, £353. (Both of Ormskirk.)

Portadown.—Construction of (1) A.F.S. station, (2) wardens' action stations, for U.D.C. Frederick C. Millar, Town S., Town Hall : *R. Heathwood, Bridge-st., Portadown, Co. Armagh, N.I., (1) £338, (2) £193.

Sheffield.—Extensions to bakery department, for Davies' Food Stores, Ltd. : *Daniel O'Neill & Sons, Ltd., Solly-st., Sheffield. (Estimated cost £1,000.)

Sheffield.—Demolition of property, for T.C. W. George Davies (F.), City Architect : *J. Childs, 172, Moor-la., Sheffield.

South Shields.—Dismantling houses, for T.C. : *North-Eastern Dismantling Co., Ltd., £737.

West Riding.—Erection of works : *G. & J. Seddon, Ltd., 5, Manchester-rd. West, Little Hulton, nr., Bolton, Lancs.

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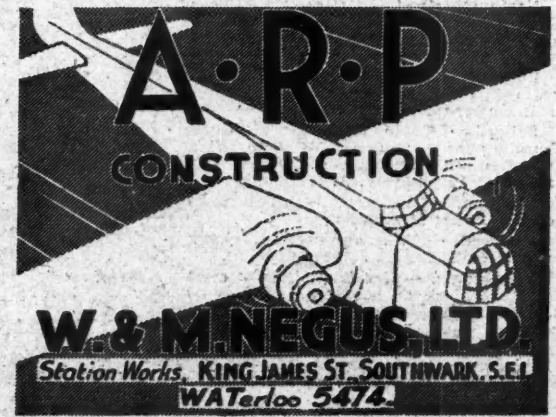
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